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ABSTRACT

Under the guidance of the Council of Europe's ad hoc Committee for Educational Research, a second survey of the educational research policy, principal educational research organizations, and major educational research projects of member countries has been completed. To facilitate comparison with the 1968 survey, a similar questionnaire was used. This volume is devoted to educational research in the United Kingdom and in Sweden. A review of the educational research policy in each of these countries describes the agencies which promote educational research, their financial status, and the methods they use for decision making and information dissemination. Organizations which conduct educational research are listed along with their address, chairman, a historical background, and a report of their current status and program. A directory of current research projects for each country gives the title of the project, the principal researcher, sponsoring organization, and purpose. The directory of Swedish projects also lists their procedures, results, and references. Some of the research topics are: permanence of learning of pupils at school-leaving age, teaching chemistry in universities, tutorial schools, comparative analyses of goals and instructional processes in school systems, reading disabilities, computer-assisted learning systems, and programed instruction. (JY)

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EDUCATIONAL RESEARCH

EUROPEAN SURVEY 1970

Volume I

UNITED KINGDOM
SWEDEN

DOCUMENTATION CENTRE FOR EDUCATION IN EUROPE

Editor:
Director of Education
and of Cultural and Scientific Affairs
Council of Europe
STRASBOURG
1971

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I N T R O D U C T I O N

The Council of Europe's ad hoc Committee for Educational Research, which was set up by the Council for Cultural Co-operation in 1968, has the task of promoting information on, co-ordination of, and co-operation in educational research at the European level.

Under the guidance of the Committee, the Documentation Centre for Education in Europe carries out and publishes European Surveys on Educational Research at two-year intervals. The First Survey was conducted in 1968 and published in 1969 (Council of Europe.- Educational Research, European Survey 1968.- Strasbourg, Documentation Centre for Education in Europe, 4 Vols., 1969). The Second Survey, carried out in 1970, is now presented.

The Surveys contain the replies received from member Governments of the Council for Cultural Co-operation to questionnaires drawn up by the Committee. The objective of the Surveys is to serve as an instrument for mutual information of Governments and researchers. The Surveys are intended to provide detailed yet concise information on the educational research policy of member Governments, on the main educational research organisations and on the major educational research projects reported or in progress in the country in the respective time period.

The questionnaire which underlies the Second Survey is basically identical to the questionnaire of the First Survey. This should facilitate comparison. However, in the questionnaire of the 1970 Survey, a section was added which asked for information on educational research projects carried out by research organisations other than those primarily concerned with educational research. Furthermore, in the light of experience gained from the First Survey, a number of questions were reformulated. The redrafting of the questionnaire was done by a working party which was set up at the 1969 meeting of the Committee and comprised experts from France, the Federal Republic of Germany, the Netherlands, Sweden and the United Kingdom.

The national contributions to the 1970 Survey have tended to be more comprehensive than those received in 1968. In some member States the number of educational research projects and of research organisations has considerably increased. The growing impact of research on educational practice and, at the same time, the difficulties engendered by accelerated educational growth, have led many member Governments to refine their policies for planning, co-ordinating and financing educational research. The Second Survey is therefore even more voluminous than the First. This certainly raises the question of how this method of collating and distributing information on educational research at the European level might be improved in future - a problem which is on the Committee's agenda for its 1971 annual meeting.

To speed up the process of publication, contributions have been offset printed in several volumes in the order and in the language in which they were received. Following the Committee's advice, no attempt was made to translate the manuscripts into the other official language. This would at present have posed insurmountable difficulties to the Secretariat. An Index Volume,

listing the names of the researchers mentioned in the Survey and containing key words for the retrieval of the projects described in English and French respectively, will be published at the end of the series.

The technical editing which in some cases involved a certain amount of linguistic revision, had, as previously, to be done by the Secretariat in addition to its normal duties. Any misinterpretation that may have arisen will, it is hoped, be met with indulgence.

The Secretariat is glad to report that some member Governments have used their contributions to this Survey as the basis for a national publication and that in a number of member States the procedure of replying to the questionnaire has led to the creation of permanent machinery for collating and disseminating educational research information. It can also be proved that the Surveys have assisted educational research organisations and individual researchers in establishing contacts and engaging in co-operation. The Secretariat hopes that the Surveys will make an impact on educational policy in Europe by convincing decision-makers that there is a growing pool of research potential at their disposal, in their own country and abroad, which can contribute to the formulation and solution of those problems to which research can offer an answer.

Strasbourg
March 1971

Niels BORCH-JACOBSEN
Director of Education and of
Cultural and Scientific Affairs

UNITED KINGDOM

England and Wales

I. EDUCATIONAL RESEARCH POLICY

A. PROMOTION OF EDUCATIONAL RESEARCH

1. Supporting arrangements: agencies etc

The arrangements for stimulating educational research in England and Wales are diffuse. Broadly, a division can be made between organisations which are solely or mainly concerned with the provision of funds for research undertaken by other bodies (though some of these organisations may themselves do research); and organisations and institutions which are mainly concerned with undertaking research, financed by outside funds, though they may to some extent use resources of their own.

Even within these divisions, the position is not clear-cut. Thus not only does the Central Government (Department of Education and Science) have its own programme for commissioning educational research but it also supports - either completely or partially - a number of other agencies who are themselves interested in stimulating educational research in their related fields.

In a general sense therefore the national arrangements in England and Wales are based upon a loose network of organisations, with often distinct but overlapping fields of interest and with varying, and often complete, degrees of autonomy. Detailed information on some of these organisations is given in Part II; the following brief notes are intended to show how they fit into the national network.

(i) Main funding bodies

(a) Central Government

The Planning Branch of the Department of Education and Science administers and manages the Department's own programme. When originally established in 1962, one of the main aims of this programme was to stimulate general interest in educational research, as well as to provide funds by means of which individual projects might be financed. It thus sponsored projects in a wide variety of fields. With the growing involvement of other agencies, some of which provide specialist coverage of areas formerly included within the Department's programme, the Department itself is now concentrating on commissioning projects which are directly related to policy considerations or are of general public concern. The Department employs part-time research consultants, draws as necessary upon the advice of academic and professional specialists in particular fields, and also has available the help of HM Inspectors of Schools.

(b) Research Councils

A number of Research Councils, separately administered, but employing funds provided by the Central Government, have an interest in supporting

educational research in their related fields. The foremost of these, in the present context, is the *Social Science Research Council*, State House, High Holborn, London WC1R 4TH, which was set up by the Government in 1965. Educational research is considered specifically by the *Educational Research Board* of the SSRC, which makes recommendations to the Council concerning grants in support of specific projects and programmes, and post-graduate scholarships for training research students.

(c) Schools Council for Curriculum and Examinations, 160 Great Portland Street, London W1N 6LL.

Full information on the work of the Schools Council is given in Part II; it stimulates and commissions a wide range of research and development work. It is financed equally by Central Government (Department of Education and Science) and Local Education Authorities.

(d) National Council for Educational Technology, 160 Great Portland Street, London W1N 5TB.

Formed in 1967, the NCET encourages and finances (from funds provided mainly by the Department of Education and Science) research and development projects in educational technology. Further details of its work are provided in Part II.

(e) Independent Foundations

Much educatinnal research in universities and other institutions in England and Wales is undertaken by means of funds made available by a variety of independent "charitable" Foundations, eg Nuffield, Leverhulme, Gulbenkian, Wolfson and Rowntree. The Nuffield Foundation has been particularly influential in stimulating and carrying through research and development work on the curriculum; it also administers a "small grants" scheme, which is of particular value in supporting individual research workers, and enabling pilot and feasibility studies to be undertaken before the preparation of applications for more substantial long-term support.

(ii) Main institutions undertaking research

(a) Universities

The bulk of educational research undertaken in universities is largely supported either by funds allocated for specific projects by one of the fund-raising bodies or from the general facilities and funds provided for the universities through the University Grants Committee.

(b) National Foundation for Educational Research, The Mere, Upton Park, Slough, Bucks.

The NFER is an independent institution carrying out research and related work on behalf of the education service. It receives substantial general support from Local Educational Authorities and others, including an annual grant from the Central Government. The Foundation also undertakes specific research projects commissioned and financed by the Department of Education and Science, the Schools Council, and other bodies.

2. Planning and co-ordinating educational research

The majority of the organisations involved in supporting research publish reports which include lists of current and recently completed projects. (Further details of these are given in Section C.) From them, and from other publications issued by research-supporting organisations, it is possible to obtain a picture of the work currently being undertaken. The Central Government has general arrangements for co-ordinating research sponsored by government departments in the social sciences, and for ensuring that departments are aware of research being undertaken by the Social Science Research Council. More specifically, co-ordination is achieved by representation of the Department of Education and Science on the Schools Council, the Educational Research Board of the Social Science Research Council, and other bodies. In addition, the Department of Education and Science has arranged a series of *ad hoc* meetings between representatives of the main educational research funding bodies, to enable these bodies to take stock of the present situation in a general way, and to consider common problems.

3. Finance

As is explained above, the funds available for educational research in England and Wales come from a variety of sources and it would be extremely difficult to provide a reliable estimate of the total expenditure at the present time. It would be necessary to provide careful analyses of the information published by the various funding bodies, collating this information with the elements of central government published statistics and to assess the extent of the time of university staff that are engaged on educational research within the general facilities and funds provided through the University Grants Committee.

B. PARTICULAR FIELDS OF EDUCATIONAL RESEARCH

Decisions on expenditure of the funds available to the research councils, the Schools Council and the Foundations are the responsibility of those bodies. As some organisations (eg the Schools Council and the National Council for Educational Technology) are concerned with specific areas of research, the statements from these agencies in Part II will be of particular interest.

The Department of Education and Science is itself concentrating its support on projects having a specific application to the evolution and implementation of its own policies. From 1964 to 1970, the Department provided funds for research within the field of modern languages on the basis of recommendations made by the Committee on Research and Development into Modern Languages. This Committee, set up temporarily, has now completed its term of office and no specific provision is now made for research in modern languages.

C. INFORMATION CONCERNING EDUCATIONAL RESEARCH

1. Registers etc

The National Foundation for Educational Research published Registers of Research covering the period up to 1969. From 1970 the main register of research in England and Wales - *Scientific Research in British Universities and Colleges* (published by HMSO) - has included in Volume III a section on educational

research. The Centre for Information on Language Teaching, State House, High Holborn, London WC1R 4TH, which is supported by the Department of Education and Science, the Scottish Education Department and the Ministry of Education for Northern Ireland, maintains a register for current research concerning all disciplines which may contribute to the improvement of language teaching. In addition, the various research funding agencies provide lists of the projects they have themselves commissioned. Most of these lists, including the scientific register, are annual publications and the amount of information provided varies a good deal - some give full details of the projects being supported, others only titles or brief statements.

Details of research undertaken for higher degrees in universities can be obtained from the ASLIB register of theses presented in British universities. This biennial publication has a section devoted to theses in the field of education, and cross-references to such theses in other social science sections.

2. Availability of research information

The general availability of the lists referred to in A2 and C1, and the publications provided by many of the research funding organisations provide a basis for interested individuals and organisations to keep up to date with the progress of research. In addition to annual statements and reports on particular projects, a number of the funding agencies issue quarterly or monthly newsletters or bulletins, such as *Dialogue*, published by the Schools Council, and the *Newsletter* of the Social Science Research Council; there are numerous educational newspapers, magazines and journals in which details of current and recently completed research can be reported; and the Centre for Information on Language Teaching publishes a quarterly journal of abstracts of papers and articles concerned with research on language teaching.

As the Department of Education and Science is now concentrating on projects specifically orientated to its own policy needs, information from these is immediately available to the people concerned. Additionally, by means of the assessors referred to in A2, the Department is able to keep itself informed of work being considered or being undertaken elsewhere.

3. Dissemination of knowledge of research findings

The newspapers, journals and magazines referred to in C2 are a valuable means for the dissemination of knowledge of research findings to teachers. The universities, Local Education Authorities, teachers' organisations and HM Inspectorate undertake extensive programmes of in-service training, including courses and conferences which consider or draw upon the findings of educational research. There are some 400 teachers' centres, set up by Local Education Authorities and managed by groups of teachers, which provide opportunities for members of the profession to become familiar with the results of recent research and its application in the classroom.

The members of HM Inspectorate have a standing responsibility to study and sift the evidence provided by educational research and to convey this to the schools and teachers as part of a two-way transmission of research findings and practical field experience. They do this partly through the in-service courses already referred to but mainly through their day-to-day contact with teachers, through which they are able to ensure that classroom innovations and experiences become widely known.

D. FUTURE TRENDS

Within the past five years there has been a very considerable growth in the numbers of bodies and agencies active in the field of educational research, and in the proportion of funds devoted to this activity. Such bodies as the Social Science Research Council and the Schools Council are of relatively recent origin, and few of the projects financed by these bodies have yet been completed. Further developments in the work of these and other bodies will be reported in future replies to the European Survey.

A. PROMOTION OF EDUCATIONAL RESEARCH

Educational research in Scotland at national level is the responsibility of the *Scottish Education Department* which has its headquarters in St Andrew's House, Edinburgh. In 1965 the Department set up a *Research Branch* to administer and manage its programme of grant-aided research. Since that date it has also set up a *Departmental Committee on Educational Research* and a *Planning Committee (Research and Development)* with the aim of stimulating research, suggesting *priorities and vetting* applications for research grants. The chief national agency for research in Scotland is the Scottish Council for Research in Education. The work of the Council if described in Part II.

The National Council for Educational Technology, the Centre for Information on Language Teaching and the Educational Research Board of the Social Science Research Council operate on a UK basis and the Department is represented on them by members of HM Inspectorate of Schools.

Research projects commissioned or supported by the Department are co-ordinated by the two Departmental Committees mentioned above. Their members are drawn from the Department's administrative staff and HM Inspectorate of Schools.

The Department sets aside an amount in its annual estimates to cover grant-aided and sponsored research. The amount for 1970-71 is *£85,750* from which is paid approximately £35,000 to the Scottish Council and a contribution to the total annual cost of the National Council for Educational Technology.

The Scottish Council supports and commissions research projects from funds allocated by the Department, local authorities, teachers' organisations, etc.

B. PARTICULAR FIELDS OF EDUCATIONAL RESEARCH

-

C. INFORMATION CONCERNING EDUCATIONAL RESEARCH

The Department publishes a list of *completed and on-going research projects* - including those sponsored by the Scottish Council - in its Annual Report. The Scottish Council also publishes an *Annual Report, a quarterly Newsletter* and maintains a *register* of current and recently completed research, based on reports from universities, colleges of education (ie teacher training colleges), local research groups and persons undertaking research projects single-handed. The information in the register is not published except with the permission of the investigator concerned. The register enables the Council to inform an inquirer whether a topic is already being studied by another investigator.

The Department is kept informed, by means of interim and final reports, about research projects which it sponsors or grant-aids. It is also kept in touch with other projects by its representatives on the various educational research bodies.

The Annual Reports mentioned above are available to teachers. In addition, the Scottish Council publishes *full accounts* of its investigations together with *shorter bulletins* in which the results are presented in simple non-technical terms for the benefit of the practising teacher. The Council recently introduced the *Newsletter* mentioned above which is circulated to, *inter alias*, serving teachers. Conferences are held in various parts of the country at which staff of the Council meet teachers and administrators to exchange views on research. Individual teachers can, at their request, be supplied with non-confidential details of completed or on-going research projects.

Collaboration exists between the Department and teachers, administrators and researchers. This is achieved through contacts with the Scottish Council, universities, colleges of education (ie teacher training colleges), teachers' organisations and local authority associations.

D. FUTURE TRENDS

Following the comparatively recent establishment of bodies concerned with conducting educational research on a UK basis (eg the National Council for Educational Technology and the Educational Research Board of the Social Science Research Council) it is likely that the present structure of educational research in Scotland will be retained but the position will be reviewed regularly.

UNITED KINGDOM

Northern Ireland

A. PROMOTION OF EDUCATIONAL RESEARCH

The *Northern Ireland Council for Educational Research* (financed mainly by local education authorities and teachers' organisations) is the major promoter of educational research in Northern Ireland.

The *Advisory Council for Education* (a Statutory Committee) advises the Ministry of Education upon such matters connected with educational theory and practice as they think fit and upon any questions referred to them by the Ministry. The Council is at present considering the existing selection procedure for secondary education and the age of transfer to secondary education.

The *Northern Ireland Schools Curriculum Committee* was set up early in 1969 in order to maintain closer links with the Schools Council for the Curriculum and Examinations and to advise on Northern Ireland participation in Schools Council research and development projects. Northern Ireland may take part in these projects either by participation from the initial stages or by joining as an associated area at a later stage. In the former case an agreed percentage of the cost is paid by the Ministry. Schools Council projects with which the Curriculum Committee is associated include Language Development in the Primary School, English in the Middle Years of Schooling (8 to 13 age group), Integrated Science (13 to 16 age group), Geography for 'O' and 'A' level pupils, Secondary School Mathematics, Physics 'A' level, Technology, Research and Development in Handicraft and Linguistics and English Teaching - Language in Use. Another matter currently receiving attention by the Ministry is the possibility of carrying out an assessment of reading skills amongst the children in Northern Ireland schools which will relate their skills and abilities to those of children elsewhere in the UK.

The growth in public expenditure on education in recent years, coupled with the increasing pressure on public funds in general, has emphasised the importance of efficient and integrated forward financial planning. It was decided, therefore, in 1969 to set up a *Forward Planning Unit* within the Ministry, which would be responsible for the co-ordination of planning in relation to the Ministry's expenditure. The Unit is closely allied in organisation structure with the Statistics Branch to ensure that the requisite data base is available.

B. PARTICULAR FIELDS OF EDUCATIONAL RESEARCH

There are no priority fields of educational research that have been or will shortly be promoted in particular in Northern Ireland. The main fields of research activity by the Northern Ireland Council for Educational Research are detailed in Part II.

C. INFORMATION CONCERNING EDUCATIONAL RESEARCH

There is no recurrent register of educational research projects completed or in progress in Northern Ireland. The Ministry of Education participates in the continuous compilation of the national (UK) registers of research topics that have a particular economic relevance, and which are maintained by the Treasury Committee on Economic Research. Other than this, it is felt that Northern Ireland is a sufficiently small geographic area for all interested bodies to be fully aware of research undertaken.

Teachers are kept informed of new methods and techniques through publications and through the work of the Ministry's Inspectorate. In this connection the Northern Ireland Schools Curriculum Committee advises the Ministry on the dissemination of information about the work of the Schools Council. In addition to this, steps are being taken to give effect as soon as practicable to the recommendation that teachers' centres be provided in Northern Ireland,

which was contained in the recent Report of the Working Party appointed by the Ministry to consider the provision and organisation of in-service training of teachers. A liaison and advisory committee to co-ordinate in-service training in Northern Ireland has now been set up.

D. FUTURE TRENDS

There are no definitive new trends or new measures under consideration which seem likely to change the present structure of research policy.

II. ACTIVITIES OF EDUCATIONAL RESEARCH ORGANISATIONS

Replies were received from the following organisations:

1. Social Science Research Council, London
2. Schools Council for Curriculum and Examinations, London
3. National Council for Educational Technology, London
4. National Foundation for Educational Research, Slough
5. The Scottish Council for Research in Education, Edinburgh
6. Northern Ireland Council for Educational Research, Belfast

Name of organisation: SOCIAL SCIENCE RESEARCH COUNCIL

Address: State House, High Holborn, London WC1R 4TH

Chairman: Mr Andrew Shonfield

A. HISTORICAL

1. Year of foundation: December 1965; year of coming into operation: January 1966.

2. The Social Science Research Council was set up following the recommendations of the Heyworth Committee on Social Studies, which believed that the social sciences were expanding rapidly and were "ready to move to a new level of support". Since support on the required scale was unlikely to come either from research users in industry or Government or from the university, the Committee suggested a Research Council which would both advise the Government and allocate Government funds to social science research.

3. The Social Science Research Council was set up on the initiative of the British Government.

B. STATUS AND PROGRAMME

1. The Social Science Research Council is a quasi-governmental body. Its direct responsibility is to the Department of Education and Science.

2. The Social Science Research Council is governed by a Council consisting currently of 14 members and a Chairman, all of whom are appointed by the Secretary of State for Education and Science. Council members are chiefly academics with an experience of social science research and its use. Assessors also sit on Council from Government departments.

3. The Council is assisted in its decisions by 13 committees whose members provide specialist advice on their respective subjects. Educational research is looked after by an Education Research Board.

4. The Council's full-time *staff* at the time of writing is approximately 80 members. None of these are carrying out research directly, although the expertise of the senior secretariat does form a research facility in advising applicants for support. The Secretariat of the Educational Research Board consists currently of four full-time members, plus supporting staff.

5. The total *budget* of the organisation in 1968-69 was £1.5 million; in 1969-70, £2.25 million; and in 1970-71, £3.4 million. This money comes exclusively from Central Government.

6. The Social Science Research Council provides Studentships in education which are intended for the support of people undergoing taught courses or research training leading to higher degrees. Some of these awards are made to teachers, although the Council does not support vocational training for teachers as such. The number of such Studentships awarded in 1970-71 was 50.

7. The main provision for direct training of educational research workers are a series of conversion Fellowships which are designed to enable graduates in other disciplines to switch to education or one of the other social sciences. In addition research training takes place as a by-product of the Social Science Research Council's support for research projects: a number of research assistants employed under these grants are concurrently registered for higher degrees.

8. The *research policy* of the Educational Research Board, as of other Council committees, is chiefly a responsive one. Applications are received from members of universities and other institutions with research responsibilities and are evaluated both with reference to internal criteria and a tentative but developing system of priorities. The Educational Research Board of the Social Science Research Council, however, is moving towards firmer initiatives in relation to areas of education which it feels are inadequately researched at present. This has led them to invite applications for grants to support a limited number of major research programmes in education lasting for five years. The subjects of special interest to the Educational Research Board are:

- teacher education and utilisation;
- nursery and pre-school education;
- minorities;
- further education; and
- the evaluation of new approaches to education.

In the last year for which full records are available, 1969-70, the Educational Research Board of the Social Science Research Council, in consultation with other Council committees, approved 23 new research projects with a value of £221,211.

9. Report: Social Science Research Council Annual Report 1969-70
London, HMSO, p.276.

Name of organisation: SCHOOLS COUNCIL FOR CURRICULUM AND EXAMINATIONS

Address: 160 Great Portland Street, London W1N 6LL

Chairman: Dame Muriel Stewart, DBE

Joint Secretaries: Mr G. F. Cockerill, Mr R. Sibson, Mr G. W. Cooksey

A. HISTORICAL

1. Year of Foundation: October, 1964.

2. Reasons and developments leading to foundation of the Schools Council:

Until comparatively recently changes in the school curriculum have taken place only through the slow spread of ideas among teachers (helped by the efforts of HM Inspectors) or through the work of committees set up for some specific purpose. The rate of change did not keep pace with the needs of the times or provide a speedy response to developments in particular branches of knowledge or to changes in the general view about the aims of education. The Schools Council for the Curriculum and Examinations - or the Schools Council as it is now generally called - grew out of a recognition by all branches of the education service that co-operative machinery was needed to organise a more rapid, and more effective, response to these changes.

The first move was made in 1962 when the then Ministry of Education set up a Curriculum Study Group to offer a service of advice and information to the schools and technical services of the Secondary School Examinations Council. The establishment of the Group aroused some fears that the Ministry might be trying to centralise control of the curriculum: more positively, it hastened the wide recognition of the need for co-operative machinery to stimulate, organise and co-ordinate fundamental curriculum changes.

In July 1963, the then Minister of Education presided at a meeting of representatives of the various educational interests. The meeting appointed a Working Party under the chairmanship of the late Sir John Lockwood, Chairman of the Secondary School Examinations Council, to consider whether co-operative machinery was needed and, if it was, how it should be provided. The Working Party reported back to the Minister in March, 1964. Its members had

unanimously concluded that there was such a need, and they recommended that it should be met by the establishment of a Schools Council for the Curriculum and Examinations, on which teachers should be in a majority. The report was considered by a reconvened meeting of representatives in July 1964, under the chairmanship of the then Secretary of State, who was asked by the meeting to take the necessary steps to establish the Council.

The Council, representing the whole educational service including the universities, the Department of Education and Science, and HM Inspectorate, began work in October 1964, under the chairmanship of Sir John Maud, Master of University College, Oxford. The Secretary of State transferred to it most of the staff of the Curriculum Study Group, which thereupon ceased to exist.

B. STATUS AND PROGRAMME

1. Now independent, but with strong links with the Department of Education and Science, local education authorities, universities, examining boards, teacher organisations, colleges of education, members of HM Inspectorate.

2. Governing body: the Governing Council.

Size: 73 members (chairman appointed by Secretary of State for Education and Science)

Function: Ultimate responsibility for the Schools Council's policy and programme, approval of annual report and finances.

Member interests: Teachers organisations, GCE and CSE examining boards, local education authorities, religious education bodies, trade unions, industry, the Secretary of State for Education and Science, other educational and professional organisations. TEACHER MAJORITY.

3. Committees: Governing Council, Curriculum Development Steering Committees for the 2-13, 11-16 and 14-18 age ranges, Committee for Wales, Subject Committees, Finance and Programme Committees, Examinations Committees.

Organisation: Administrative Team
Research Team
Examinations Team
Curriculum Development Teams
Subject Committees Team
Information Section and media adviser
Publications Section
Field Officer Team
Schools Council for Wales (based at Cardiff)

4. Staff in 1970:

- Staff at Great Portland Street and Cardiff: 100+ (full-time - a few senior officers are 'part-time' with university or HM Inspectorate duties in addition to their work in the Schools Council).

- Committee Members (a majority of whom are teachers) - estimated - 700.

- In addition, Schools Council sponsored 'projects' (ie major studies) numbering approximately 100, based at universities and colleges of education (formerly known as 'teacher training colleges') in England and Wales, employ at least 500 research workers and/or teachers.

5. Budget

The Council's income for Research and Development in 1968-69, 1969-70 was £775,000 and £675,000 respectively. Both figures include £100,000 provided by the DES.

Our total income for 1970-71 is £1,250,000 shared equally between the DES and the LEAs. Of this £709,000 was allocated to Research and Development.

6. No participation in initial teacher training but local teachers' centres - in liaison with the Schools Council's Field Officers - help to promote new ideas on the curriculum.

7. No participation in training of educational research workers - apart from involvement in the Schools Council's projects.

8. Programme

Research and development are two words which are closely associated in modern educational discussions. A distinction can certainly be drawn between curriculum development and educational research, but in the Council's work the distinction is seldom clear-cut and the two activities merge into each other. When a curriculum development project is planned the Council needs to know about existing research which may throw light on the problems likely to be encountered. If the relevant research does not exist then it needs to plan and commission suitable work.

Whether the research should precede the development, or vice versa, or whether the two should be carried out simultaneously is an interesting and debatable point. In an ideal theoretical world, research should precede development but in the real world of the school this is not so certain. The Council sponsors research which it hopes will have relevance for the teacher in the classroom, and which will either illuminate curriculum development or add to knowledge about the nature of examining. It is perhaps for others to do the kind of long-term fundamental research which might or might not have profound consequences for education in general. A glance at the list of current research projects illustrates the nature and scale of the research programme.

Present policy is to commission outside agencies, usually university departments, Institutes of Education or the National Foundation for Educational Research, to do this work. The Council's Research Team undertakes short-term investigations and some statistical work connected with examinations, but we leave the major investigations to others. Nevertheless the role of the team is important and delicate. It advises on the research needs of the Council, assists in the design of programmes, helps to select the most suitable people to carry out the research and maintain contact with the research workers on the progress of the work. In addition it advises on any research already in existence which might

be relevant to the Council's responsibilities, and also tries to assess the potentiality and limitations of any research proposed. The Research team tries to forge good relations between the Council and the university and College of Education world and to break down any barriers which might exist between schoolteachers and academics. Research is often difficult and complex and the reporting of results in terms which can be understood by the busy classroom teacher is not easy.

The research team consists, in addition to the Director of Studies, of educational researchers who have held teaching posts in school, university, and college and who have all actually carried out research themselves. It thus acts as an important link between university and college on the one hand and the Council on the other.

Support for educational research has increased enormously over the past decade. The problems thrown up by this expansion of activity are formidable. If money is not to be wasted then wise decisions have to be made about priorities, research methods, and the choice of individuals and teams to carry out the work. The research group assists with the solution of these problems.

9. Main activities

The Council's main work on examinations so far has centred on the Certificate of Secondary Education; numerous investigations have been mounted into new ways of examining and the results published in the Examinations Bulletin Series. A second and important strand of the research work in examinations has been the investigations of the comparability of standards between the many CSE Boards. The work done in this area has been very important and has led to much closer agreement about standards amongst the CSE Boards. Work on the comparability of standards will be continuing in the future though it may well take a rather different form.

More work will now be done on cross-moderation and cross-marking by the Boards in co-operation with the National Foundation for Educational Research.

The basic requirement is still the same as in the early days of the CSE: that is simply to produce better examinations. One of the most interesting and vital areas in the realm of research and examinations for the immediate future is at the 'A' level in the GCE examination. The Council has set up a Working Party to look at possible new patterns of sixth form teaching and sixth form examining and there appears to be a real need at 'A' level to undertake research similar to the CSE investigations. At 'A' level everything will be just that little bit more difficult because such important decisions are made by universities in selection of students on the basis of 'A' level examination results. The consequent pressure on the examination is a main source of difficulty.

Although there is no easy way to reduce this pressure, researchers could nevertheless improve the system. Because it believes that comparability between Boards is important the Council is supporting research into standards in mathematics at GCE 'A' level. The Department of Education and Science and the Council have also jointly financed an investigation into supplementary predictive information for university admission. This work involves the construction, for experimental purposes, of a test of academic aptitude and also an attempt to use, more scientifically, school information on potential university students.

10. The policy for research can be summarised as follows: the Council is not a grant-giving body for those who seek finance to implement their own ideas for fundamental research. The Council will commission research but only if it satisfies certain criteria. First it must fit into the overall policy of the Council, second it must provide illumination for some aspect of curriculum development or problem in examining, and third it must have some prospect of improving classroom teaching.

11. Report: Schools Council Report 1966-70
London, Evans/Methuen Educational, p.72.

Name of organisation: NATIONAL COUNCIL FOR EDUCATIONAL TECHNOLOGY

Address: 160 Great Portland Street, London W1N 5TB

Director: Mr Geoffrey Hubbard

A. HISTORICAL

1. Year of foundation: 1967.

2. A Committee on Audio-Visual Aids in Higher Scientific Education was set up in 1963 by the University Grants Committee, the Department of Education and Science and the Scottish Education Department, under the Chairmanship of Dr (now Sir) Brynmor Jones. In its report, published in 1965, the Committee recommended, among other things, that a National Centre for Educational Technology should be established, to provide a focal point for future research and development, under the overall control of a National Council. The Government found itself unable, for economic reasons, to embark on the creation of a Centre, but in April 1967 the then Secretary of State announced the decision to set up a Council, which held its inaugural meeting the following month.

B. STATUS AND PROGRAMME

1. NCET is constitutionally independent but funded directly by the Department of Education and Science, the Scottish Education Department and the Ministry of Education in Northern Ireland.

2. Governing body: a national council, consisting of 27 members and nine assessors. The Council is concerned to promote the development, application and evaluation of systems, techniques and aids to improve the process of human learning.

The members are appointed as individuals, not as representatives of bodies.

3. The Council operates through an executive Planning and Finance Committee and five specialist committees: Publication, Training and Innovation, Information, Resource Management and Resource Development.

4. Staff in 1970

10 permanent, full-time staff
2 full-time research fellows
4 full-time project staff
2 part-time project staff

5. Research Budget

1967-68	£22,000
1968-69	Figures not available
1969-70	" " "

Financed by national government.

6. The Council is currently engaged in two projects which are directly connected with the training of teachers, one for initial training, one for in-service training.

7. Participation in the training of educational researchers: none.

8. The Council's programme is mainly concerned with developmental activity to advance the adoption of new methods of learning. Major developments are often preceded by small scale feasibility studies.

Major developmental projects in hand

Primary extension programme

Concerned with the application of audio-visual media to the education of socially disadvantaged children from 4 to 8 years of age. Three year programme supported by a grant from the Bernard Van Leer Foundation.

Continuing mathematics

Development of self-instructional materials for sixth-form students who are not studying mathematics for examination purposes but need to increase their grasp of the subject for the purpose of their main studies. Four year programme, about to commence.

Individualised student instruction technique in medical education

Development of tape-slide material for first year medical students. Three year programme at Glasgow Western Infirmary.

Familiarisation project

Preparation of a core of material for in-service training courses for teachers on the principles of educational technology. Two year programme.

Major development project, proposed but not yet funded

Computer aided instruction - a five year programme of research and development at an estimated cost of £2 million.

Smaller projects and feasibility studies

There are also a number of smaller projects in progress in the fields of information, costing studies, hardware and software requirements.

Name of organisation: NATIONAL FOUNDATION FOR EDUCATIONAL RESEARCH in England and Wales

Address: The Mere, Upton Park, Slough, Buckinghamshire SL1 2DQ

and at: 79 Wimpole Street, London W1M 8EA

Director: Stephen Wiseman, MEd, DSc, PhD, FBPsS

A. HISTORICAL

1. Year of foundation: established 1946, under the administrative supervision of the University of London; became a separate, self-governing body on 1 April 1947.

2. Founded on the initiative of Local Education Authorities, Educational and Teaching Associations, Universities and similar bodies.

3. Reasons, developments etc that led to its foundation: the establishment of a special research fund, derived from voluntary sources, during the immediate pre-war period, and the impetus given to educational research by the provisions and aspirations of the 1944 Education Act.

B. STATUS AND PROGRAMME

1. The NFER is an independent institute.

2. The governing body of the NFER is the Annual General Meeting of Members, which deals with general policy and certain other matters. The Foundation's Board of Management, which is composed of representatives of the different types of Member Organisations, has full powers to conduct the business of the Foundation between General Meetings.

3. Divisions, sections, units, etc: Numerous Research Projects; Statistical Services; Administrative Services; Guidance and Assessment Services; Information Services; Editorial Services; Book Publishing Division. The Test Distribution activities formerly carried out by the Test Agency are now provided by the Foundation's subsidiary, the NFER Publishing Company.

4. Staff in 1970

	(Full-time)	(Part-time)
Total	148	9
Research	53	-
Administrative	18	1
Clerical	77	8

5. Total budget

1968-69 £467,000
1969-70 £477,000
1970-71 £528,000

	1968-69	1969-70	1970-71
Percentage income from Members' Subscriptions	27.4%	27.2%	25.5%
Grants in Aid, Department of Education and Science	2.1%	2.1%	1.9%
Payments for various projects sponsored by the Department of Education and Science, the Schools Council, the Home Office, other public bodies and private Foundations	42.0%	31.6%	34.9%
Test Construction, Receipts and Royalties on Test Sales	21.6%	29.8%	27.7%
Publications and Sundry Receipts, Investment Interest, etc	6.9%	9.3%	10.0%
	100.0%	100.0%	100.0%

6. The Foundation does not participate in the initial and/or further training of teachers.

7. Apart from the in-service training of its own staff, the Foundation does not systematically participate in the training of educational research workers. Occasional short-term arrangements for the training of overseas research workers have been made from time to time.

8. The aims, the main fields and the methods mostly used in the research activities of the organisation:

Aims

The Foundation is committed to the investigation of educational problems which are of national importance or require particularly urgent expert study. These criteria decide the aims and selection of projects undertaken. Final selection is influenced by the availability of resources, the suitability of the subject for large-scale investigation, and the relationship of each particular project to the Foundation's existing research programme.

Final decisions as to whether to undertake projects are made by the Foundation's Board of Management, which includes representatives of all types of educational organisations in England and Wales.

The main fields

Projects are in operation, or project reports being prepared for publication, in the following areas:

Communications research

The French Project (the teaching of French in Primary Schools); including the Third Cohort Study.
Tests of English for Immigrant Children.

Educational environment

The Constructive Education Project (school organisation factors, and the attainment of pupils).
The Pre-School Project.
Educational Arrangements for Schools with Immigrant Pupils.
The Educational Progress of Immigrant Children.

Educational and Vocational Guidance

The Vocational Guidance Project.
Educational Guidance Research.

Examinations and Test Research

Research into CSE Examinations.
Research into GCE Examinations.
School to University Research.
Test Research and Development by the Guidance and Assessment Service (a continuing activity).

9. Report: National Foundation for Educational Research in England and Wales 24th Annual Report 1969-70, p.56.

Name of organisation: THE SCOTTISH COUNCIL FOR RESEARCH IN EDUCATION

Address: 46 Moray Place, Edinburgh EH3 6BH

Director: Dr David A. Walker, OBE, MA, MEd, PhD, FRSE, FEIS

A. HISTORICAL

1. Year of foundation: 1928.

2. An interest in educational research was stimulated by the institution of degrees in education at Scottish universities in 1916.

In addition the Educational Institute of Scotland, the largest union of teachers in Scotland, formed a Research Committee in 1919.

The Research Council was a natural development of this trend.

3. The formation of the Scottish Council for Research in Education was due to the joint initiative of the Educational Institute of Scotland (the main organisation of teachers) and the Association of Directors of Education in Scotland.

B. STATUS AND PROGRAMME

1. The Scottish Council for Research in Education is an independent research institution financed mainly by contributions from the Scottish Education Department, the education authorities and the Educational Institute of Scotland.

2. The Council has a *membership* of 57 at present and includes representatives of the Association of County Councils, Association of Counties of Cities, the Educational Institute of Scotland, the Association of Directors of Education, the Universities, the Colleges of Education, the British Psychological Society (Scottish Branch), the Society of Medical Officers of Health (Scottish Branch), the General Teaching Council for Scotland, the British Sociological Society (Scottish Branch), the Scottish Certificate of Education Examination Board, together with representatives of other teacher organisations, a number of co-opted members and assessors from the Scottish Education Department.

At its meetings which are held twice in each year the Council considers reports on the progress of research carried out by the Council and approves new projects. It also makes grants to bodies or persons carrying out educational research in Scotland. Between the meetings of Council an Executive Committee carries out these functions.

3. There is no subdivision into sections, units, etc.

4. Staff in 1970

	(Full-time)	(Part-time)
Total	10	2
Research	5	-
Administrative	-	-
Clerical	5	2

5. Total budget

1967-68	£39,000
1968-69	£42,800
1969-70	£47,100

Percentage contribution from sources of funds

Government	65%
Education Authorities	17%
Teacher organisations	4%
Foundations	9%
Publications	5%

6. The Research Council is not concerned with the training of teachers.

7. The Research Council does not participate in the training of educational research workers other than its own staff.

8. The Council's *work* may be summarised as follows:

(a) conducting research through committees of the Council;

(b) sponsoring research to be conducted by persons or groups on the Council's behalf;

(c) co-ordinating the research efforts of others and arranging for facilities to be provided for projects approved by the Council but executed by others;

(d) publishing the results of educational research conducted in Scotland;

(e) maintaining registers of current research and completed research in Scotland and a library of research journals;

(f) advising bodies or persons engaged in research;

(g) disseminating the results of research;

(h) making grants to persons or bodies requiring financial assistance to undertake research projects.

The present *policy* of the Research Council is that it should concentrate its activities in four main fields:

- Secondary Education;
- Examinations and Assessment;
- Environment, and
- Further Education.

9. Proposals for *new projects* come from the Scottish Education Department, or from representatives of the various bodies on the Council. They also arise from the various liaison meetings held each year with staffs of the university departments of education, psychology and sociology, staffs of the colleges of education and with the Education Committee of the Educational Institute of Scotland.

For research project proposals which originate within the Research Council the normal procedure is for a sub-committee to be appointed to draw up an outline of the project for submission to the Executive.

For research proposals put forward by an individual the outline of the project is referred to three 'experts' and their comments and the proposals are submitted to the Executive.

The *final decision* to undertake a project or to finance an individual's project is taken by the Executive Committee.

The Executive when approving a project must also decide whether it is to be undertaken by the Council itself or sponsored, ie, carried out by some other body with financial assistance from the Council.

The *supervision* of a project executed by the Council itself is generally carried out by a Committee appointed by the Executive for the project.

The supervision of sponsored research is in the hands of the persons asked by the Research Council to undertake the particular project but a report must be submitted twice a year to the Council.

The supervision of grant-aided projects is in the hands of the individual who applied for financial assistance but a report is requested twice a year by the Council.

10. The Research Council maintains a *register* of educational research being conducted in Scotland. This enables any individual researcher to contact the Research Council and be put in touch with others engaged in similar lines of inquiry.

Each year the Research Council publishes its *annual report* which includes summaries of the work carried out in the various projects during the year.

Name of organisation: NORTHERN IRELAND COUNCIL FOR EDUCATIONAL RESEARCH (NICER)

Address: 18 Windsor Avenue, Belfast BT9 6EF

Chairman: The Very Reverend W. A. A. Park, MA, DD

Secretary/Treasurer: J. McGilton, BA, MEd, PhD

A. HISTORICAL

1. Year of foundation: 1963. Research Unit established: 1967.

2. Aims: to co-ordinate and initiate educational research within the Northern Ireland school system.

3. Founded on the initiative of the Association of Northern Ireland Education Committees.

B. STATUS AND PROGRAMME

1. Autonomous, but operates an independent Research Unit in Queen's University, Belfast, under the direction of the Research Officer, who is an Honorary Research Fellow of the University.

2. The Council consists of:

Association of Northern Ireland Education Committees	- 10 members
Teachers' Organisations	- 10 members
Universities and Colleges of Education	- 6 members
Ministry of Education	- 2 members

3. Divisions, units, etc:

An Executive Committee of 8 members
A Finance Committee of 5 members
Panels, Technical and Liaison Committees, as required, for particular projects.

4. Staff in 1970

	(Full-time)	(Part-time)
Total	5	None
Researchers	3	None

5. Total budget

1968	£3,300
1969	£5,200
1970	£7,000

Annual income:

Education Committees	85%
Teachers' Organisations	12%
University and Colleges	3%

Additional Sources:

The Social Science Research Council has made a grant of £16,086 towards the cost of a three-year project, "Young School Leavers in Northern Ireland", commencing in October 1970.

6. No participation in the training of teachers.

7. Main fields of research activity

(i) The Teaching of Reading and Number/Mathematics in the Lower Primary School in Northern Ireland - investigated by questionnaires to teachers and school principals.

(ii) (a) The relationship of environmental conditions (School, Neighbourhood and Home) to the educational progress of primary school children at two age levels, 7+ and 10+ - investigated 'by schools' and 'by pupils' at each age-level.

(b) The relative importance of parental behaviour and attitudes, by contrast with environmental conditions, in relation to the educational progress of primary school children at two age-levels, 7+ and 10+ - a 'by pupils' investigation, complementary to (ii)(a).

(iii) The investigation of the efficiency of post 11-plus selection for grammar school education in Northern Ireland: a retrospective follow-up to GCE 'O' level, of a complete form-group in 74 grammar schools.

(iv) Item-analysis, for the Northern Ireland GCE Committee, of objective-type questions set in 'O' level Biology and Chemistry papers.

(v) Young school leavers in Northern Ireland - a modified replication of the investigation reported in Schools Council Enquiry No. 1, 'Young School Leavers' (1968).

III. SELECTION OF COMPLETED AND ONGOING EDUCATIONAL RESEARCH PROJECTS 1969-70

A T T A I N M E N T

1. *Non-intellective factors in secondary school success*

   A. MILNE

   The Scottish Council for Research in Education

   1967-70

   Purpose: To provide useful information on the importance of non-intellective variables in relation to school success.

2. *International project for the evaluation of educational achievement, Phase II*

   D. A. PIDGEON and B. CHOPPIN

   National Foundation for Educational Research

   1967 for 5 years

   Purpose: National Survey, with areas of study: science, civic education, French as a foreign language, English as a foreign language, reading comprehension and literature in English as a mother-tongue.
   (See also Scottish Council for Research in Education project.)

3. *International project for the evaluation of educational achievement, Phase II*

   Dr D. A. WALKER, G. J. POLLOCK, J. L. POWELL

   The Scottish Council for Research in Education

   1966-69

   Purpose: To be of assistance to those engaged in teaching the subjects concerned. The listing of objectives, analysis of contents of syllabi and construction of measuring instruments in the first stage have been found to be profitable exercises for teachers.
   (See also NFER project.)

4. *Permanence of learning of pupils at school-leaving age*

   Dr G. REITH, Dr D. A. WALKER, G. J. POLLOCK

   The Scottish Council for Research in Education

   1966-69

   Purpose: To investigate the complaints of some employers regarding the educational standards of young people entering industry from school. The results of the investigation should provide evidence for the justification or otherwise of these complaints. It will be possible to present a picture of the attainments of typical pupils at varying levels of ability.

5. *Early learning panel*

Convener: Professor SETH, Department of Psychology, Queen's University, Belfast

Northern Ireland Council for Educational Research (NICER)

1968-

Purpose: To examine, initially by questionnaire means, current practice with regard to the early learning of reading and number/mathematics in the infant end of a 10% sample of Northern Ireland primary schools.

6. *Plowden follow-up study*

M. BARTONOVA

National Foundation for Educational Research

1967-69

Purpose: To follow up the original Plowden National Survey sample of 3,000 pupils from junior and infants schools. This will enable assessment of the importance for pupil progress and development of parental attitudes and other variables relative to the findings of the earlier survey.

7. *Some correlates for academic performances of pupils in secondary schools*

Dr H. B. MILES

Education, the University of Hull

1969-

Purpose: Attainment of the whole population of 15 year olds and some 16 year olds in the area of one Local Education Authority will be examined in relation to a range of variables broadly analogous to that examined by the Plowden Committee on primary schools, in an endeavour to throw into relief important determinants of attainment at the secondary stage. The area in which the investigation will take place includes grammar, county secondary and comprehensive schools. Re-organisation of schools on comprehensive lines is taking place, school by school, as circumstances permit. Thus it is hoped to detect any effects existing now, on attainment attributable to type of organisation and to establish base-line criteria against which to assess the longer term effect of re-organisation.

8. *Coping style and achievement: a cross national study of school children*

Dr. K. M. MILLER

Independent Assessment and Research Centre, the University of Liverpool

1969-

Purpose: The way in which young children cope with problem situations has been studied by Lois Murphy. The present study has been designed to extend the work to 10 and 14 year olds with the aim of increasing knowledge of the coping skills needed to achieve academic and vocational competence. - The study has three stages, initial work with children, interviews with parents of a subsample of the children and a cross-validation with a smaller sample of children. - The tests and techniques used for data collection include tests of general ability, arithmetic and reading, occupational values, social attitudes, sentence and story completion and a sociometric rating. - Note: The main support of the

study, which is being carried out in eight countries - Brazil, England, Germany, Italy, Japan, Mexico, the USA and Yugoslavia - has been provided by the United States Office of Education.

9. *Relationship between personality and attainment at the junior stage*

D. SHARPLES

Research Unit, the University of Bristol

1970-

Purpose: The study seeks to describe ways in which children of differing personalities respond to classroom experiences during the final two years of the primary school, the subjects being two hundred and sixty children in nine classes. Five schools are involved, ranging from a single class to one of sixteen classes. - Measures of attainment within the schools, tests of language and number and of attitudes towards school and the curriculum are used to indicate the response of the children to schooling. Measures of personality and data of intelligence, social background and sex are also considered. These data are collected on each of three occasions during the period of the study in order to reveal changes in the variables concerned. The children are being observed in their classes in order to relate the test scores to the different school situation. - A knowledge of the relationships between classroom practice and pupil's personality may enable teachers to select appropriate teaching techniques, whilst the longitudinal nature of the study should reveal something of the stability of the attitude and personality measures. Subsequent studies might examine the effects of adapting teaching style to the personality of the child.

A D M I N I S T R A T I O N

10. *Policy making in local education authorities in Merseyside*

Professor F. F. RIDLEY

Political Theory and Institutions, the University of Liverpool

1969-

Purpose: This project is intended to extend our current research on politics on Merseyside into a specific policy area, that of education. The provision of an education service is one of the major functions of English local government, but as yet comparatively little is known in detail about how policies are formed at the local level. This project is intended to fill some of the gaps in our knowledge by examining the kinds of education service four LEAs on Merseyside offer the communities they serve and the process whereby this provision is made. General experience and some research evidence indicate that the services offered at primary, secondary and further levels will differ in important ways between authorities and the intention is to explore some of the main political, administrative and socio-economic factors which may account for these diversities. - The evidence will primarily consist of interviews with representatives of the major groups involved in the educational policy making process and will include members of the education committees, both elected and co-opted, some local government officers, officers of the various teacher groups, members of the political parties and representatives of the various voluntary groups active in the area of education.

A T T I T U D E S

11. *Ethnic awareness in young children: a follow-up into early adolescence*

Professor T. VENESS

Educational Psychology Institute of Education, the University of London

1969-

Purpose: In a previous study, children between the ages of 3 and 7 were assessed in relation to their awareness and reactions to other ethnic groups. Three areas of outer London were studied and the number of children showing hostile tendencies was found to be related to the history and incidence of immigration in the areas. - The present study is a follow-up of the same children eight years later. One of the things of interest is the possibility that some of the children initially hostile may by now have become tolerant. The information should prove relevant to educational and community practice concerning race relations.

C H I L D D E V E L O P M E N T

12. *National child development study (1958 Cohort) - second follow-up*

Professor N. R. BUTLER, M. HEALEY, Professor J. M. TANNER

National Bureau for Co-operation in Child Care

1968-

Purpose: This project is a longitudinal study from birth to maturity of one week's births in Britain. The children, over 16,000 in all, were born in March 1958 and were the subjects of a comprehensive perinatal survey shortly after birth. Information gathered at that time included social as well as obstetric data, and two major publications have emerged. - Some 92% of the children were re-traced in 1964 and information was collected on their education, behaviour, health, physical development and social environment shortly after their seventh birthdays. The information was gathered from three main sources: schools who completed a questionnaire and administered several tests of ability and attainment; local authority health visitors, who interviewed parents and completed a schedule; and school medical officers, who carried out a medical examination. A first report on the English children in the sample was published in 1966 and a second publication covering the whole sample is planned for 1970. - The rational of the study rests basically on the fact that the nature of the sample will permit valid generalisations about the long-term effects of early events, including perinatal factors, upon children's subsequent development. Moreover, the re-examination of the sample at regular intervals will make some evaluation on the treatment or handling of a variety of handicaps. Although the strength of the study derives principally from its longitudinal character, each examination of the children provides valuable normative data and permits regional and other analyses of a cross-sectional nature.

13. *Educational and medical research, Isle of Wight*

Professor J. TIZARD, Dr M. RUTTER (Institute of Psychiatry), Dr T. WHITMORE (Department of Education and Science)

Institute of Education, the University of London

1966-

Purpose: This is a collaborative project comprising a series of studies undertaken jointly with colleagues in the Health and Education Services on the Isle of Wight and with help from numerous colleagues in the Institute of Psychiatry and Institute of Education of the University of London, and elsewhere. In 1964-65 intensive surveys of the prevalence of handicapping conditions of educational concern were carried out on the Isle of Wight in three complete age groups of children (= 3300) born between 1.9.52 and 31.8.55. The 1964 survey was concerned with educational backwardness and related conditions; the 1965 survey, carried out on the two younger cohorts, was concerned with epilepsy and other neurological disorders, with chronic physical handicaps and sickness of all sorts, and with maladjustment. These investigations were carried out in two stages: screening procedures were applied to the whole population in the selected age group; psychologists, psychiatrists and social scientists carried out standardised clinical examinations of the children selected on the basis of the screening procedures and of control. Mothers of selected children were interviewed in their homes. Throughout, special attention was paid to the standardisation of data and its reliability. In each survey about 600 children and their families were seen. The data from these surveys have been analysed and are described in detail in 'Education, Health and Behaviour' 1970. Three further lines of enquiry have been undertaken and results are being analysed at present.

14. *Aspects of the development of social responsiveness in young children*

Professor S. G. M. LEE, M. HERBERT, D. S. WRIGHT

Psychology, the University of Leicester

1968-

Purpose: The aim of the research is to study the mother-child attachment system under controlled laboratory conditions in order to make clear some of the ways in which children differ in their attachment behaviour, and their behaviour to strangers, and to discover some of the correlates of those differences, and to examine the primitive social skills used by the child to maintain proximity to his mother.

C U R R I C U L U M D E V E L O P M E N T

15. *A development centre for living materials for teaching purposes*

P. J. KELLY

Chelsea College of Science and Technology

1969 for 3 years

Purpose: To find the most suitable organisms and strains for particular teaching purposes and development work on their culture; study of the problems of transporting living material and of the maintenance of cultures in schools, principally secondary schools; the provision of information on these matters to schools and help with relevant in-service training of teachers and laboratory assistants.

16. *Project to evolve research and materials relevant to a programme of religious education in secondary schools which will take into account the existence of voluntary schools and the presence of non-Christian population in this country*

    Professor N. SMART

    University of Lancaster

    1969 for 3 years

    Purpose: To give insights into the role of religion in the foundation of British society and into the nature, challenge and consequence of religious belief.

17. *Project Technology* (see DES Project E.48)

    G. B. HARRISON

    Loughborough College of Education

    1967-72

    Purpose: To help pupils to understand the role of technology in society, and the application of scientific knowledge to practical problems; to develop teaching materials and to stimulate outside support of all kinds which will help teachers to integrate technology with several subject areas of the school curriculum for pupils of all ability levels.

18. *Sixth-form curricula and examinations: the attitudes of pupils and teachers*

    R. MORTON-WILLIAMS

    Government Social Survey, London

    1969-69

    Purpose: A sample survey to describe the composition of sixth forms, the patterns of curricula available, the objectives of the sixth form and of sixth form teaching, and sixth form pupils' attitudes to their courses. Part of the survey is concerned with other young people in the same age-range as the sixth formers, but who are following full-time non-advanced courses in colleges of further education, the aim being to study in detail the aspirations and attitudes of this particular group of students and their courses and conditions of study.

19. *North West regional curriculum development project*

    Dr. W. G. A. RUDD

    University of Manchester School of Education

    1967-70

Purpose: A project concerned with the production and co-ordination on a regional basis of new curricula for the last two years of secondary education for early leaving pupils. The project's seven main study areas are creative arts, domestic studies, English, experimental methods, moral education, social (including health) education and technology.

20. *Nuffield 'A' level chemistry*

E. H. COULSON

Centre for Science Education, Chelsea College of Science and Technology

1965-69

Purpose: The preparation, in collaboration with other Nuffield physical science projects, of a scheme of work for 'A' level chemistry together with the development of materials for pupils and teachers. Materials include teachers' guides, students' books, a book of data, programmed texts, master diagrams for preparation of overhead projector transparencies, 8mm film loops and sheets of experimental instructions.

21. *Nuffield combined science project (11-13)*

M. J. ELWELL

Nuffield Combined Science Project (11-13)

1965-69

Purpose: To provide materials for a combined science course for pupils aged 11 to 13 complete in itself and suitable as a lead into subsequent science courses including 'O' level courses (Nuffield or other), the Nuffield Secondary Science course, and CSE work. The material is based on the first two years of the Nuffield 'O' level texts, rationalised and co-ordinated.

22. *The teaching of chemistry in universities*

Dr D. E. HOARE, M. REVANS

The Scottish Council for Research in Education

1967-70

Purpose: To improve the teaching of chemistry in universities, particularly in the first year of the courses where failures are most frequent.

23. *Nuffield 'A' level physics*

Dr P. J. BLACK, J. OGBORN

Physics Department, University of Birmingham

1966-70

Purpose: A project to construct a two-year course suitable for sixth form pupils. The course attempts to emphasise the mutual relevance and interaction of different types of thinking in physics; the importance of thoughtful experimenting by pupils working both in groups and individually and the relevance of the ideas and results of physics to society and everyday life.

24. *Nuffield 'A' level biological science*

P. J. KELLY

Centre for Science Education, Chelsea College of Science and Technology

1965-70

Purpose: Materials for four units of work have been produced and evaluated. They are entitled 'Maintenance of the Organism', 'Organisms in Populations', 'The Developing Organism' and 'Control and Co-ordination in Organisms'. In these applied and pure biology are closely related, and some topics of physical science and mathematics are introduced in a biological context. The scheme also includes project work, and complementary examination and assessment techniques have been devised.

25. *Moral education curriculum project*

P. McPHAIL

University of Oxford Institute of Education

1967-71

Purpose: The project aims to devise curricular materials and teaching methods that will help pupils to recognise situations requiring moral judgment and work their way through them with some understanding of the rational processes involved. The project works in close association with the Farmington Trust for Research in Moral Education.

26. *Humanities curriculum project*

L. STENHOUSE

Phillipa Fawcett College of Education, London

1967-72

Purpose: To develop materials and teaching methods appropriate to enquiry-based courses which cross the traditional subject boundaries between English, history, geography, religious studies and social studies. The project has concentrated on developing strategies for the teaching of controversial human issues to pupils of average and below-average ability.

27. *Mass media and the secondary school*

Dr J. D. HALLORAN

Centre for Mass Communication Research, University of Leicester

1967-71

Purpose: A study of pupils' attitudes towards and reactions to the mass media of communication and entertainment, and of the effect on them of teachers' attitudes and methods of dealing with the media in their teaching.

28. *Secondary school mathematics project*

P. FLOYD

University of Exeter Institute of Education

1967-72

Purpose: A project aimed at providing teachers with guidance and source materials to help them construct courses in mathematics for pupils of average and below-average ability. The writings will include applications of mathematics relevant to pupils' experience and should provide them with some insight into the processes that lie behind the use of mathematics as the language of science, and as a source of interest in everyday things.

29. *The teaching of English to West Indian children*

J. WIGHT

Department of English Language and Literature, University of Birmingham

1967-70

Purpose: To develop materials to help the teaching of English to West Indian children. Research into the linguistic, social and emotional problems of these children has been completed.

30. *Science 5-13*

L. F. ENNEVER

University of Bristol School of Education

1967-70

Purpose: To assist teachers to help children, through discovery methods, to gain experience and understanding of the environment, and to develop their powers of thinking effectively about it. This is being done through the identification and development at appropriate levels, of topics or areas of science related to a framework of concepts appropriate to the ages of the pupils.

31. *Environmental studies (5-13)*

M. I. HARRIS

Cartrefle College of Education, Wrexham, Denbighshire

1967-70

Purpose: The project is developing guides and other supporting materials for teachers who wish to provide opportunities for children to investigate their physical and social environment.

32. *Children as readers*

D. BARNES

University of Leeds Institute of Education

1967-72

Purpose: An examination by teachers of the part literature can play in the curriculum.

33. *Sixth form curriculum and examinations*

W. A. REID

University of Birmingham School of Education

1968-70

Purpose: An investigation into the sixth form curriculum and problems of university entrance, by the Sixth Form Curriculum Development Group established by Birmingham University in collaboration with teachers in the Midlands. The co-operation of the Joint Matriculation Board has been obtained.

34. *Nuffield 5-13 mathematics teaching project*

Professor G. MATTHEWS

Nuffield Mathematics Teaching Project, London

1964-71

Purpose: To devise a contemporary approach to the teaching of mathematics for children aged 5-13.

35. *Study of various aspects of the sixth form mathematics curriculum*

C. P. ORMELL

University of Reading Institute of Education

1969-71

Purpose: A review of the content of sixth form mathematics to assess the value of various topics to different categories of pupils. Associated with this review are investigations into the connection between mathematics and physics, the mathematical needs of pupils taking such subjects as biology and economics, and the mathematics that can profitably be taught to the non-mathematician.

36. *Combined science 13-16*

Professor K. KEOHANE

Centre for Science Education, Chelsea College of Science and Technology

1969-72

Purpose: To develop a science course covering the normal range of science subjects of a sufficient standard to provide a satisfactory basis for all existing 'A' level science courses. The envisaged course will require 6-7 teaching periods per week. The materials to be developed will be suitable for the 'O' level range of pupils, and will draw upon the experience gained in Nuffield science projects.

37. *The arts and the adolescent*

P. COX

University of Exeter Institute of Education

1968-72

Purpose: To discover what methods and materials in the fields of visual art, music, dance, drama and poetry are most likely to elicit a lively response among young people; how young people view their own involvement in the arts, both in

and out of school, and how much connection there is between these two forms of often disparate activity; how much connection can be made, and how much transfer of interest is possible, between one art and another and between each art and other subjects in the curriculum.

38. *Project for the integration of the humanities*

D. W. BOLAM

University of Keele Institute of Education

1968-71

Purpose: To explore the possible means to and meaning of integration in the humanities. The central concern is with the organisation of learning most likely to lead to a relatedness of the disciplines through the concerted action of teams of teachers exploring themes, problems or areas of enquiry. The project is aimed at the whole ability range.

39. *General studies project*

R. I. SMITH

University of York

1968-71

Purpose: To help teachers improve the quality of general education in general or liberal studies and in 'specialist' courses taken by students aged 15-18 in secondary schools and colleges of further education. With the help of associated teachers, the project designs and tests units of study which embody a variety of ideas about learning, and which can be assembled in alternative patterns related to particular themes, topics or disciplines. The project also aims to devise appropriate methods for information storage and retrieval to support enquiry-based learning.

40. *Social studies (8-13)*

Dr. D. LAWTON

London University Institute of Education

1968-70

Purpose: An enquiry into the content and the materials and methods used in existing work on social studies in primary schools and in the junior forms of secondary schools. The enquiry will examine the contributions made by any academic discipline to the achievement of educational objectives which are concerned with social relationships and assess the need for further work to develop materials which will help teachers.

41. *Art and craft education (8-13)*

C. JONES, S. ROBERTSON, M. LAXTON

Goldsmiths' College, University of London

1969 for 3 years

Purpose: To co-ordinate and make known advances in art and craft teaching; to formulate guide-lines for possible future developments; to consider the contribution which art and craft can make to integrated studies; to undertake pilot experiments in the in-service and pre-service education of teachers.

42. *The whole curriculum for the middle years of schooling*

Professor A. ROSS

Department of Educational Research, University of Lancaster

1968-72

Purpose: An investigation into the approaches to learning best suited to the needs of children in the middle years of schooling, bearing in mind the need to ease the transition from primary to secondary schooling, the opportunities provided by the newly established middle schools, the experience already gained with inter-disciplinary studies in junior and secondary schools, changing views about the content of the curriculum.

43. *Social education project*

Professor H. DAVIES

University of Nottingham Institute of Education

1968-71

Purpose: To make teachers aware of new approaches to social education by establishing 'social workshops' where, through guided experience, they can learn how to help pupils grow in social responsibilities by taking part as members of groups in self-determined social projects.

44. *Aims of primary education*

Dr. P. M. E. ASHTON

University of Birmingham School of Education in association with the West Midlands Primary Schools Research and Development Group

1968-71

Purpose: To produce a handbook which will help teachers to draw up their own individual statements of aims and to put them into operation.

45. *Evaluation of Nuffield Foundation/Schools Council project in teaching of French in primary schools*

C. BURSTALL

National Foundation for Educational Research

1964 for 9 years

Purpose: To evaluate the pilot scheme for the teaching of French in primary schools. Some principal areas of enquiry are: the effect of the introduction of French on the level of general attainment; the assessment of level of achievement in French, with particular reference to the performance of low-ability children; the influence of attitudinal factors; and the organisational and teaching problems posed by the introduction of French, including those of teaching in small rural schools.

46. *Formulation and development of evaluation instruments for use in connection with the Schools Council project on primary mathematics*

L. PAULI

Institut des Sciences de l'Education, Geneva

1966 for 4 years

Purpose: Development of a series of 'check-ups' on concept attainment in mathematics which teachers in the Nuffield project areas can use to confirm progress made by individual children.

47. *Primary French pilot scheme* (See also card for DES Project E.37, B.7)

A. SPICER and C. BURSTALL

University of York and National Foundation for Educational Research

1964-73

Purpose: To develop teaching materials in French and to ascertain on what conditions it would be feasible to contemplate the general introduction of a modern language into the primary school. Attainments, teacher attitudes and the effects on schools' organisation and curriculum are being investigated. The project included the production of the film 'French from Eight' (1967).

48. *Cambridge school classics project* (See also card for DES Project E.30)

D. J. MORTON

University of Cambridge Department of Education

1966-70

Purpose: To develop non-linguistic materials for the study of classics by pupils of widely varied ability; materials and techniques for a linguistic course aimed at improving pupils' ability to read classical Latin and at widening their knowledge of classical civilisation.

49. *Religious education in the primary school*

C. M. JONES

University of Leeds Institute of Education

1969 for 18 months

Purpose: To summarise recent literature and research on religious education and to draw out its implications for primary school teachers; to describe and analyse religious education in primary schools where it is considered to be of outstanding quality.

50. *Nuffield secondary science project* (See also DES Project E.47)

H. MISSELBROOK

Chelsea College of Science and Technology

1965-70

Purpose: To develop materials for an integrated science course for pupils aged 13-16 who are unlikely to take the 'O' level examination in science; evaluation work and supplementary study to provide guidance for teachers on Mode III CSE examinations for pupils following courses using the materials developed by the project.

E N G L I S H L A N G U A G E

51. *Programme in linguistics and English teaching*

Professor M. A. K. HALLIDAY

University College, London (Communication Research Centre Department of General Linguistics)

1967-71

Purpose: Materials are being developed for teachers in primary and secondary schools, relating particularly to the infant, middle school, and upper secondary and college age-ranges; courses of various kinds in linguistics and English teaching are being provided for teachers and college lecturers.

52. *Question and response by children in school*

Dr W. P. ROBINSON

Department of Psychology, University of Southampton

1968-71

Purpose: To develop measuring techniques and to use them to survey the incidence and type of questioning behaviour exhibited by secondary school children, with a view to describing socially based sources of variation in curiosity and interrogatory skills.

53. *Development study of the written language of children of secondary school age*

J. N. BRITTON

London University Institute of Education

1966 for 5 years

Purpose: A development study of the processes by which the written language of children becomes differentiated, during the years 11-18, into kinds of written discourse appropriate to different purposes; in particular a study of the dynamic relationship, within these kinds of discourse, of 'personal' to 'impersonal' uses of the written language; finally some assessment of the contribution of the spoken language to this development and of the relationship between writing ability and reading ability.

54. *A study of oracy among children of secondary school age*

Dr A. M. WILKINSON

University of Birmingham Institute of Education

1967 for 3½ years

Purpose: To construct measures of the two aspects of oracy - listening and speaking appropriate to the age-range 11-18, and to relate the information provided by these resources to information about social, psychological and other linguistic factors.

55. *English for immigrant children* (See card for DES Class No. E.10)

J. DERRICK

Leeds University Institute of Education

1966-71

Purpose: The team has completed 'Scope', Stage I, an introductory course to assist the teaching of English to non English-speaking immigrant children, age 8-13. The team has begun work on supplementary materials for children between 8 and 13 and on a senior course for pupils between 14 and 16. In September 1969 work begun for production of materials for teachers of infant immigrants.

56. *School achievement of children with slow speech development*

Dr T. T. S. INGRAM, A. MASON, M. McISAAC

The Scottish Council for Research in Education

1967-70

Purpose: Previous research studies have shown that slow speech maturation in otherwise healthy and intelligent children is often associated with late difficulties in learning to read and spell. Studies of this relationship have been unsatisfactory because valid measures of speech development have not been available and the investigations of reading difficulties have been retrospective. Valid measures of linguistic and phonetic maturation are now available and will be used in this investigation.

57. *Handwriting in schools*

Dr G. G. N. WRIGHT, Dr H. WRIGHT

The Scottish Council for Research in Education

1960-69

Purpose: To provide a firmer foundation than has been available hitherto for constructing handwriting schemes and suggesting suitable tools and teaching methods for the various stages of the primary school.

E C O N O M I C S O F E D U C A T I O N

58. *Costs of higher education*

Professor C. A. MOSER, B. DAVIES, G. WILSON and P. STONE

Higher Research Unit London University

1969-72 (Ford Foundation)

Purpose: To gain understanding of causes of variation in the marginal and average costs of producing roughly similar kinds of graduates, in particular subject groups, and to see how these costs vary by size and type of institutions, location and so forth.

59. *Programme of studies in the field of manpower planning*

Professor C. A. MOSER, B. AHAMAD

Higher Education Research, London School of Economics and Political Science

1968-

Purpose: The programme consists of four studies designed to provide a clearer understanding of some of the problems of manpower planning and a systematic framework within which such problems may be solved. The first study is concerned with evaluation and assessing the manpower forecasting experience in several different countries. The second aims at analysing the demand for social scientists in the UK in the post-war period. The third study is concerned with the cost benefit approach to educational planning. The fourth study is earnings analysis of graduates in the UK.

EDUCATIONAL TECHNOLOGY

60. *The development and evaluation of some educational applications of a computer assisted learning system*

Professor G. B. COOK, J. R. HARTLEY, Professor K. LOVELL

Education, the University of Leeds

1969-

Purpose: The investigations now in progress cover a range of student ages, subject areas and different teaching approaches. Six inter-related projects have been identified: primary school mathematics, English as a second language (with the needs of immigrant children especially in mind), mechanics at 'O' level, electronics at 'A' level, applied statistics for non-specialists at first year university level and some topics in chemistry at university level. The objectives of the work are to write and evaluate educational material, to develop computer techniques for producing material so that further progress can be made towards the individualisation of instruction and hence to develop a system which can accommodate different teaching approaches and techniques of assessment. The projects will be based on Modular 1 computer (provided by a grant from the Science Research Council) to which initially twelve terminals of keyboard and slide/tape variety will be added. These terminals will be sited in schools and in university departments and will be used for some teaching from October 1970.

61. *Factors affecting the efficiency of learning from programmed instruction*

Dr J. HARTLEY

Psychology, the University of Keele

1967-

Purpose: This research aims to examine factors that affect the efficiency of learning from programmed instruction mainly in a school situation. Interest centres of administrative variables (eg spacing of time, pairing, group and paced work) for these have not been widely studied, and yet they have important economic implications. A further feature of this research is the use of long-term retention measures of the efficiency of programmed learning.

E D U C A T I O N A L P S Y C H O L O G Y

62. *A longitudinal study of child-rearing practices in an urban community*

Dr. J. NEWSON

Psychology, the University of Nottingham

1967-

Purpose: The Child Development Research Unit is engaged in a longitudinal study of child-rearing practice, based upon a representative sample of 700 children in the City of Nottingham. Behaviour of both child and parents, and the parents' feelings and attitudes surrounding their interaction with the child, are explored by means of extensive interviews with the mother in her home. Interviews are repeated at intervals through the child's life, at what are expected to be crucial stages for most children: so far, the mothers have been seen at the children's first, fourth and seventh birthdays, and fieldwork is now proceeding at the 11-year-old level. - The main interest of the project thus far has centred upon the social differences found in the moral atmospheres prevailing in the home: that is to say, the different ways in which mothers evaluate their children's behaviour in terms of 'good' or 'bad', and reflect back to them such evaluations in the attempt to establish a 'conscience' in the child. Apart from its general purpose of throwing light upon the normal range of behaviour in ordinary families, then, the study will in the long term hope to examine how different kinds of conscience develop and emerge out of different patterns of evaluating attitudes towards children and out of the differing means by which parents attempt to transmit these attitudes. - The Unit is also undertaking comparative studies of child-rearing in special groups. Handicapped children's upbringing has already been investigated (under separate sponsorship), and a sample of children who are fatherless for various reasons is now being added.

63. *An attempt to develop instruments to assess role uncertainty in adolescents*

M. J. PROCTER

Statistical Research Unit in Sociology, the University of Keele

1968-

Purpose: The initial motivation for this work was to provide operational means for testing a number of hypotheses concerning adolescent stress reactions to ambiguity of expectations for behaviour. Questionnaires were administered to several samples of adolescents attending comprehensive school, and an apprentice training school. Measurement characteristics within and between the questionnaires were examined statistically. Results so far have proved no more than suggestive, and further questionnaire administration is planned. When the questionnaires have been developed to a state of adequate performance a further investigation will be designed to test the substantive hypotheses.

E X A M I N A T I O N S

64. *An investigation into GCE 'A' level comparability in mathematics*

Professor D. B. SCOTT and Professor J. F. SCOTT (statistical consultant)

University of Sussex, School of Mathematical and Physical Sciences

1969-71

Purpose: To compare, over a two-year period, the possible variation in standards of assessment at 'A' level of single-subject mathematics by three GCE examination boards.

65. *Progress of CSE candidates in sixth forms, further education and employment*

H. L. M. HOUSEHOLD

South Western Examinations Board

1969-71

Purpose: An enquiry into the progress of past CSE candidates in sixth forms, further education and employment and hence to assess the extent to which each grade is proving a reasonable guide at its own level; to enquire to what extent 'bridge courses' are being found necessary for CSE candidates; to investigate problems of recognition of CSE by universities, further education colleges and employers.

66. *Monitoring procedures for CSE*

Dr L. S. SKURNIK

National Foundation for Educational Research

1964-69

Purpose: A study to compare the standards applied by CSE boards and by the eight GCE boards offering 'O' level examinations. To relate the CSE boards' actual results, collectively and individually, to the guidance on CSE standards given in the Seventh Report of the former Secondary School Examinations Council. To carry out research into examining.

67. *CSE research*

Dr L. SKURNIK

National Foundation for Educational Research

1969-71

Purpose: The central theme is research into CSE examinations designed to improve their quality. The studies and activities will include estimates of reliability identification of operational definitions of grades, the blue-printing of examinations, advice and assistance in cross-moderation studies undertaken by the boards, summaries of the values of grades and other related problems which may arise.

68. *Predictive value of CSE grades for further education*

I. C. WILLIAMS

Thurrock Technical College, Essex

1969-71

Purpose: To throw light on the value placed on CSE grades 2, 3 and 4 by colleges of further education in relation to the entrance qualifications for courses, not requiring GCE 'O' level or CSE grade 1.

69. *Contribution towards the International Baccalaureate Project*

Professor A. D. C. PETERSON

University of Oxford Department of Education

1970 for 6 years

Purpose: To investigate further a new common university entrance examination; syllabuses and examinations to be carefully assessed and a reasoned decision to be taken on its success and permanent establishment.

G U I D A N C E

70. *Factors determining choice of school course and subsequent career*

Dr H. J. BUTCHER (now Professor), H. B. PONT

The Scottish Council for Research in Education

1965-69

Purpose: The Robbins Committee has emphasised the need for an expansion and development of British scientific and technological education. It is important therefore to find out the reasons for the lack of applicants to fill the existing places in science and technology at some universities.

71. *Age of transfer to secondary education*

Professor J. D. NISBET, N. J. ENTWISTLE

The Scottish Council for Research in Education

1963-69

Purpose: To provide a firm basis of information about the impact of adolescence and of transfer under the present system.

72. *Assessment for higher education*

Dr D. A. WALKER, M. C. KILLROSS

The Scottish Council for Research in Education

1962-69

Purpose: It is hoped that the results of the investigation will assist those responsible for the selection of students for entry to higher education and will throw light on the causes of failure where students have been unsuccessful.

73. *Review Procedure Panel*

Dr J. McGILTON (Convener)

Northern Ireland Council for Educational Research (NICER)

1968-69

Purpose: To examine the efficiency of the Review Procedure as a method of post 11+ selection for academic education in grammar schools.

74. *Study of supplementary predictive tests for candidates for university entrance* (Linked with Project E.38 and B.10)

A. B. SAINSBURY

Committee of Vice-Chancellors and Principals (through the Association of Commonwealth Universities)

1966 (date of approval) for 8 years

Purpose: To provide evidence about the extent to which specially-constructed aptitude tests administered to a large sample of sixth-formers can help to predict academic success at university. Essentially, it is an attempt to investigate a way of reducing the predictive pressure at present placed on existing school-leaving examinations.

75. *The preparation, assessment and selection of sixth formers for university; a survey of current practices in other countries*

Dr W. D. HALLS

University of Oxford Institute of Education

1969 for 1 year

Purpose: To provide the two Council 6th form Working Parties with information about current practices in certain other countries (USSR, USA, France, West Germany, Sweden). This information will relate particularly to the curricula available in the two years prior to university assessment and examination procedures and university selection methods. A commentary will draw attention to significant elements and attempt to show their possible relevance to the English context.

76. *The effect and effectiveness of counselling in English schools*

Professor G. N. BROWN

Education, the University of Keele

1967-

Purpose: With the reorganisation of secondary education that is taking place, the need for a school counselling service is becoming increasingly obvious. Three university departments and one professional institution are, at present, involved in the training of school counsellors (Keele was one of the pioneers in the field beginning its first Diploma Course in the subject under C. J. Gill in 1965). The aim of this project is to obtain descriptions of the work of some trained counsellors in English schools.

I N T E L L I G E N C E

77. *The 1932 mental survey follow-up*

J. MAXWELL, Dr D. A. WALKER, G. J. POLLOCK, S. MAXWELL

The Scottish Council for Research in Education

1966-69

Purpose: The 1932 survey was the first national survey of intelligence of a complete year group. One of the main points of interest in the follow-up is in differential fertility for intelligence.

P R E - S C H O O L E D U C A T I O N

78. *Pre-school education project*

E. M. PARRY

Rachel McMillan College of Education, London

1969 for 18 months

Purpose: An enquiry into nursery education and other forms of organised pre-school activities - to produce an analytical description of good current practice and to advise the Council on the need to produce supporting materials for teachers.

79. *Studies of the development of cognitive perceptual and social behaviour in pre-school children*

Dr M. C. DONALDSON, Professor D. M. VOWLES

Psychology, the University of Edinburgh

1969-71

Purpose: Our previous research on the acquisition of cognitive skills in pre-school children (supported by SSRC and completed in August 1969) led us to recognise inadequacies in current methods of diagnosing cognitive states and detecting cognitive change, and at the same time to envisage possibilities of improvement. Some of these possibilities are now being explored. We are making use of video-tapes so that we can attempt analysis of features of the child's behaviour not usually included in records of performation on cognitive tasks. Also, we are developing techniques of enquiry that involve the use of a talking doll. Here the general aim is to study the effects on certain aspects of performance of reducing the influence of the adult experimenter.

M A T H E M A T I C S

80. *Methods of teaching arithmetic: experimental study*

J. D. WILLIAMS

National Foundation for Educational Research

1961-68

Purpose: To study, in a more intensive fashion than a survey would permit how certain structural methods of teaching arithmetic compare with one another and with more abstract methods.

L A N G U A G E

81. *An investigation of social and educational influences on children's acquisition of grammar*

W. S. HARPIN

Education, the University of Nottingham

1969-

Purpose: To study in detail evidence of the linguistic resources children aged 7-9 call upon in writing and to examine the order and manner of development of these resources over a period of two years, with particular emphasis on the acquisition of grammar. - To relate this evidence to variables in the school situation which seems particularly relevant to the processes of language learning and use. - To examine these findings in relation to the wider socio-cultural context of the children concerned. - To seek from this evidence and interpretations of it, suggestions for more effective educational practice in refining and developing written language skills and in recognising and overcoming linguistic handicaps and deficiencies.

M O D E R N L A N G U A G E

82. *Modern languages in the primary school*

W. CUNNINGHAM, Dr D. A. WALKER, G. J. POLLOCK

The Scottish Council for Research in Education

1964-72

Purpose: To provide valuable information on methods of teaching French in the primary school stage, optimum starting age, and consequences in the secondary school.

83. *Attitudes to and motivation for the learning of Welsh and English in Wales*

Professor C. E. GITTINS

University College of Swansea

1967-71

Purpose: A study of the attitudes of children, teachers and parents to Welsh and English; to suggest how the results can be used in the preparation of materials and teacher training to ensure the maintenance and acquisition of Welsh and English by children in Wales.

84. *Bilingual education in the anglicised areas of Wales*

G. E. RICHARDS

Glamorgan Education Committee

1968-70

Purpose: To develop ways in which school activities can be conducted in Welsh for part of the day so that children's education can be bilingual.

85. *Modern languages project* (See card for DES Class E.35)

D. ROWLANDS

University of York

1967-74

Purpose: To develop language teaching materials in French, German, Spanish and Russian for pupils between 13 and 16, following earlier development work financed by the Nuffield Foundation. The initial concentration on the oral-aural skills is followed by the development of reading and writing. Importance is attached to background information and cultural authenticity. The project is supported by a programme of testing and evaluation.

MINORITY GROUPS

86. *Environmental determinants in slow speech development*

L. J. FERRIER

The Scottish Council for Research in Education

1967-69

Purpose: To contribute to current educational theory on the subject of supplementing the environment of 'disadvantaged children'.

OCCUPATIONAL CHOICE

87. *Social and educational determinants of job choice*

Dr P. W. MUSGRAVE, J. DEALTRY

The Scottish Council for Research in Education

1967-71

Purpose: To investigate the process of occupational choice and the way in which young people settle into work. The part played by various institutions of further education in this process will also be studied.

88. *Survey of education and occupation*

A. F. McPHERSON

Education Sciences, the University of Edinburgh

1968-

Purpose: How do the occupational aspirations of students entering higher education affect each other, and how do they affect subsequent academic attainments and occupational decisions? What is the influence of sociological factors on these processes? This project is studying these and related questions in a follow-up survey of the same population as is described in the Assessment for Higher Education (AHE) project. Sociological data complementing those of the AHE project have been collected by questionnaire and from official student records. Public records have also yielded data on the occupational histories of students' families. Analysis will be by computer using multivariate techniques and it is hoped that the conclusions will be relevant to our understanding of educational and occupational choices and attainments and the relationships between them.

L E A R N I N G P R O C E S S E S

89. *The development of systematic thinking*

Professor E. A. LUNZER

Education, the University of Nottingham

1970

Purpose: The aim of the project is to establish a firm body of data on how children progress from intuitive reasoning to logical and systematic thought. One side of the work will involve administering a fairly extensive number of individual tests to children at two ages, 5 and 7-8. The results of these tests of logical thinking will be compared with various measures of scholastic performance. Particular attention will be paid to the effect of home and school environment, as well as the factor of language development. The group of 5 year olds will be carefully selected with these aims in view, so that a longitudinal follow-up should bring out clearly the effect of early home and school upbringing on subsequent development. - Alongside this extensive enquiry, it is hoped to carry out a number of more detailed experimental studies bearing on the development of logical thinking and the factors which affect performance in relevant test situations. - The results of these studies should help to clarify the educational significance of laboratory studies on concept development and logical thought. Hopefully they should also provide some indications about the optimal structure and timing of instructional programmes, and the rationale of compensatory education for children who are educationally or subculturally disadvantaged.

PRIMARY EDUCATION

90. *Children explore their environment - 3 films*

J. HOWARD

Bishop Grosseteste College, Lincoln

1969-70

Purpose: The completion of three short colour films showing how children in primary schools learn through exploration of their environment and how they react when confronted with new problems and learning situations.

READING

91. *Teaching beginners to read*

B. S. CANE and E. J. GOODACRE

National Foundation for Educational Research

1959-69

Purpose: To discover the extent and nature of the task of teaching beginners to read, and to study the relations of the reading attainment and progress of infants to their individual attributes, home circumstances and school conditions.

92. *A further enquiry into the effectiveness of the initial teaching alphabet*

B. JONES

Teaching Studies, North-Western Polytechnic

1967-

Purpose: The present study is a follow-up of some 400 children who took part in an earlier experiment to test the effectiveness of the initial teaching alphabet (ita) as a medium for teaching children to read. - The children started their school education in September 1963. In each of the 13 schools concerned the children were allocated at random to one of the two classes, with the constraints that age and sex distributions be made equal. One class, the experimental group, was taught to read in 'ita', while the control class was taught in traditional orthography (to). Tests of reading, spelling and comprehension were given over a period of three years. The results showed some significant gains for the 'ita' taught group over the controls when each group was tested in its respective medium. When both groups were tested in 'to' later in the testing programme, the results were equivocal. However, not all the 'ita' group had by then transferred to 'to'. - Now that all the 'ita' taught group have had time to transfer to, and settle down in, 'to' it will be possible to reach firmer conclusions about the merits of 'ita' relative to traditional orthography. Tests of reading, spelling, English and non-verbal intelligence are therefore being administered during the school year 1967-68. Some of these will repeat certain of the earlier tests and comparisons will be made between both sets of results. It is proposed to evaluate the effects of 'ita' on both general reading ability and specific reading skills and to consider its implications for later stages of education.

93. *Children's reading habits from 8 to 16*

F. S. WHITEHEAD

University of Sheffield Institute of Education

1969-72

Purpose: An investigation into the amount of reading done by boys and girls, 8-16, and its nature in terms of different kinds of materials; reading preferences and the ways in which these change at different ages. A study will be made of the qualities inherent in the most popular books which lead children to prefer them; the relationship between the amount and quality of children's reading and various environmental factors in school and home.

R E S E A R C H

94. *Preparation of a bibliography on Scottish Education*

Dr J. CRAIGIE

The Scottish Council for Research in Education

1961-69

Purpose: To draw up a comprehensive and detailed list of reference works relating to Scottish education.

95. *Enquiry into educational research needs as seen by the teacher*

B. S. CANE

National Foundation for Educational Research

1967-69

Purpose: To investigate what is seen by teachers to be relevant educational research, what value is attached by teachers to results so far achieved by educational research, and what kinds of further research would, in their view, be most valuable.

S C H O O L O R G A N I S A T I O N

96. *Constructive education project*

J. McNALLY

National Foundation for Educational Research

1965-72

Purpose: To investigate those factors in the organisation and life of a school which may affect the attitudes, behaviour and attainment of pupils.

97. *A comparative study of the effects of streaming in primary schools*

J. C. BARKER LUNN

National Foundation for Educational Research

1963-69

Purpose: To compare the educational attainment and social development of children in large schools which are either deliberately streamed or non-streamed.

98. *Organisation of secondary courses*

Sir James J. ROBERTSON, Dr D. A. WALKER, G. J. POLLOCK, J. L. POWELL

The Scottish Council for Research in Education

1965-69

Purpose: To study the factors which have influenced pupils taking 'O' grade examinations in 1966 in their choice of subjects, the times at which choices are made, the effects of these choices on their subsequent progress, and to study the backgrounds of those pupils in the sample who were originally allocated to non-certificate courses, with a view to ascertaining the factors which differentiated them from pupils of similar attainments who did not attempt the 'O' grade examinations.

99. *Computer procedure for school timetables*

N. L. LAWRIE, S. J. TURNER

The Scottish Council for Research in Education

1966-69

Purpose: To devise a computer procedure for constructing school timetables which would be suitable for most secondary schools in Scotland, which would be economical to run and which would provide as good a timetable as can be obtained by hand methods.

100. *A study of the factors in internal school organisation which influence pupil involvement*

Professor W. TAYLOR (Bristol), Professor R. PEDLEY (Exeter)

University of Bristol School of Education, University of Exeter Institute of Education

1967-70

Purpose: To help teachers to understand the nature and significance of the school as a social force, and to consider the ways in which the pupils' attitude and response to schooling is affected by the school's internal relationships.

101. *A study of the processes of change and innovation in an expanding comprehensive school*

Professor W. TAYLOR, J. E. RICHARDSON

University of Bristol School of Education

1968 for 3 years

Purpose: In collaboration with the head and the staff it is intended to study the problems of planning and implementing changes in a school which is increasing in size and changing its role in the community.

S C I E N C E

102. *Reduced science courses suitable as a preparation for normal university honours courses in science*

Professor L. R. B. ELTON

University of Surrey

1969 for 3 years

Purpose: An exercise in syllabus matching between school and a technological university, including the study of sixth form syllabuses and their suitability for courses at a technological university, with a special reference to some of the unconventional courses offered at the University of Surrey.

103. *The formation of scientific concepts (8-12)*

Professor J. R. WEBSTER

University College of North Wales, Bangor

1968-71

Purpose: An investigation of scientific concepts developed by children taught by different methods. Methods of assessment will be developed and applied in schools using differing approaches to the teaching of science.

S E C O N D A R Y E D U C A T I O N

104. *Research into the content of general studies in the sixth form*

Professor R. A. C. OLIVER

University of Manchester Department of Education

1967 for 2½ years

Purpose: To ascertain to what extent there exists a consensus about the desirable content of general studies in the sixth form.

S O C I A L F A C T O R S

105. *Sociological factors associated with irregular school attendance among secondary school children*

Dr S. MITCHELL

The Scottish Council for Research in Education

1968-70

Purpose: To study the environmental and personal factors associated with voluntary absence from school.

106. *Sample survey of parental attitudes* (Plowden follow-up)

Dr S. WISEMAN, R. MORTON-WILLIAMS

National Foundation for Educational Research, Government Social Survey

1967-70

Purpose: An investigation of the changing effects of parental attitudes as children progress from primary to secondary schools, using the data collected for the Plowden Committee.

107. *Implications of sociological and cultural change for secondary education in Wales*

Dr A. G. JENKINS

Department of Education, University College of South Wales, Cardiff

1967-71

Purpose: To study the existing curriculum of the secondary schools, especially the curriculum of the 15-18 year old pupils and its assumptions; to study the more significant changes in the social, industrial and cultural pattern of representative areas of Wales; to study the degree to which these changes are important for the curriculum; and to offer suggestions for relating the curriculum to these changes wherever it is important to do so.

108. *Research and development project in compensatory education*

M. CHAZAN, Dr P. WILLIAMS

Department of Education, University College of Swansea

1967-71

Purpose: To develop techniques for the early identification of children aged 4 to 8 in need of compensatory education and to produce teaching programmes to help culturally deprived children at infants school.

109. *The relationship between parent, school and child in the primary school and its effect on the child's attainment*

P. VINCENT, J. P. STRUTHERS

The Scottish Council for Research in Education

1968-71

Purpose: Information on the types of stresses and strains between home and school and an indication of ways in which the link between home and school should be strengthened in the interests of the child.

110. *Research into the effects of environmental and social factors on educational attainment and school progress* (Plowden follow-up)

Professor F. W. WARBURTON

University of Manchester School of Education

1966 for 4½ years

Purpose: To extend the study of schools undertaken by the Plowden Committee to a study of children which may help to show the relative effect on academic achievement of school, area and home influence.

111. *Educational priority areas - action research programmes*

Dr A. H. HALSEY

Social and Administrative Studies, the University of Oxford

1968-

Purpose: The object of the research is to find ways of improving the quality of the education provided for children in poor areas and of enabling them to take full advantage of the opportunities they are offered. Local projects have been started in five areas and project directors will try to develop a range of activities designed to support teachers, bring parents more closely into touch with the schools and help children to get the most out of their education. All areas will try to develop community schools. In each district careful descriptions will be made of the situation before the action programmes begin and of the developments that take place. - Attempts will also be made to evaluate experiments in organising play groups which will go on in all areas. We hope that the research may serve to stimulate public action, but also that it will set in motion new sorts of community activity which will benefit the children and their schools and which will continue even after the present programme ends.

112. *Social mobility in Britain*

J. E. FLOUD, Dr A. H. HALSEY

The University of Oxford, Nuffield College

1968-

Purpose: It is hoped to undertake a number of studies in social mobility from Nuffield College over the next five years. We have been preparing working papers reviewing relevant work in this field since the LSE survey of 1949, and new surveys designed to repeat and extend the earlier enquiries in the light of advances in knowledge and changes in social structure over the past 25 years. Several large bodies of relevant data which have already been collected under various auspices are being re-arranged and collated so as to make them as comparable as possible, not only with each other but also with the findings of foreign enquiries; and they are also being put into a form suited to incorporation in a data bank or archive for the benefit of other investigators. The secondary analysis of the resulting accumulation of data is yielding findings of interest in themselves; it also forms an important part of our preparations for a new national survey of social mobility in Britain, which it is hoped to undertake in 1971.

SPECIAL EDUCATION

113. *Music for the handicapped*

P. BAILEY

Liverpool University Institute of Education

1966-70

Purpose: Arranging and grading for pianists with one hand, arrangement of dances for people in wheel-chairs, design of gadgets for the severely handicapped, integrating thalidomide children into general music groups, survey of facilities in concert halls, practical work with record players giving help and advice to visitors and correspondents with special problems.

114. *School achievement of children with slow speech development*

Dr T. T. S. INGRAM

Child Life and Health, the University of Edinburgh

1967-

Purpose: Studies of apparently intelligent children with difficulties in learning to read and write had shown that many of them had a history of slow speech development (Ingram and Reid, 1956). Follow-up studies of otherwise healthy intelligent children referred to a speech clinic on account of slow speech development showed that many of them had later difficulties in learning to read and write (Ingram and Mason, 1965). In 1961 the Medical Research Council provided funds for a systematic study of the relationship between slow speech development and later reading and writing difficulties. A group of intelligent healthy upper or middle class children referred to a speech clinic on account of slow speech development was selected for study together with 'control' children of equivalent health, intelligence and social class.

115. *Problem solving in young normal and severely sub-normal children*

Dr W. M. WOODWARD

Psychology, the University College of Swansea

1968-

Purpose: The investigation followed from a series of studies that have been carried out on the cognitive development of children of one-and-a-half to six years and of severely subnormal children in a comparable period of development. Further study was undertaken of the early development of the rule-guided behaviour (Piaget's intuitive regulations) that begins normally during the fifth year, and from the eleventh year or later in severely subnormal children. The results provide further data on the sequence of early development concerning behavioural sequences that involve the attitudes and spatial relations of collections of objects. These suggest a change from the use of external guides to an internal mechanism for continuing a sequence of action and one from the termination of a sequence of actions by an external condition to the adoption of strategies for terminating the sequence at the appropriate point. - The further study of a previous finding concerning limited visual search was not confirmed in

tasks that did not involve choice of particular elements according to a rule. A longer response-time in rule-guided behaviour was found. - The results have practical application to the education of severely subnormal children, following further investigation, to the assessment of young individual children with emotional or physical handicaps.

S T U D E N T S

116. *A follow-up study of sixth form pupils into institutions of higher education, particularly universities* (Linked with Project E.19 and I.5)

Professor R. A. C. OLIVER

University of Manchester Department of Education

1967 for 3 years

Purpose: To provide some preliminary indications of the predictive capability of a specially-constructed test of scholastic or academic aptitude, in terms of the degree of success in institutions of higher education of a sample of sixth-formers.

117. *Assessment for higher education*

Dr D. A. WALKER

Scottish Council for Research in Education

1968-

Purpose: This project jointly undertaken by the Scottish Council for Research in Education and the Psychology Department of the University, began in 1962. Briefly its aim was to evaluate the relative contributions that information from the various sources could make to the prediction of student performance in various forms of higher education. - Approximately 5,600 of the young people entered university, college or other centres of higher education in the years 1962, 1963 and 1964 and their progress has been recorded. The final analysis will, it is hoped, yield valuable information about the factors associated with success or failure in higher education.

118. *Aspects of student socialisation and unrest*

S. R. HATCH

Department of Higher Education, London Institute of Education

1969-

Purpose: Secondary analysis of data from a longitudinal sample of 1,000 students to examine factors associated with support for protest. It is in part socio-graphic and in part concerned to test the hypothesis that protest can be interpreted in terms of discontinuities in the process of socialisation.

119. *Social influence on undergraduate academic performance - a pilot study*

Dr A. RYLE, J. PLATT

University Health Service and School of Social Studies, the University of Sussex

1970-

Purpose: This is a pilot study to test the feasibility of identifying institutional factors related to undergraduate failure, underachieving and dropping out. In a retrospective study, student pathways through the University of Sussex will be defined and evidence of clustering of difficulties at different points on these pathways will be looked for. In addition, the records of a sample of students who had presented with academic problems or had dropped out will be compared with the records of a control sample with the aim of identifying what danger signals had been made and what responses had been forthcoming. Following this the prospective study of selected samples of students currently at the University will be carried out using primarily interview techniques. If this study demonstrates the feasibility of identifying institutional stresses, it is hoped to proceed to a comparative study of two or more Universities.

120. *Student withdrawal and failure in two types of university*

Professor H. J. BUTCHER

Education, the University of Manchester

1969-

Purpose: To study factors affecting undergraduate drop-out and under-performance in two types of university; and the psychological characteristics of premature leavers, their attitudes to the university, their reactions to leaving and (where possible) the further courses of study for which they enrol or the careers they adopt within six months of leaving the university. - The general plan of the research will be to administer a questionnaire to an entire cohort to assess level of aspiration, attitude to study, etc. For groups of students thought by tutors to be 'at risk' more detailed information will be assembled. The most intensive part of the investigation will necessarily be concentrated on premature leavers after they have decided or been required to leave; it is hoped that a high proportion of these students will co-operate in a session of detailed testing and interview.

121. *Changes in students' performance on personality tests during university courses*

M. L. J. ABERCROMBIE

Environmental Studies, University College, London

1968-

Purpose: To study changes in attitudes of architecture students that may be relevant to learning to design (eg rigidity, conformism, self-image, professional image, social relation). A selection of psychological questionnaires is used for this, a core instrument being the Kelly Repertory Grid. The battery has been administered to over 100 architecture students, including samples from equivalent years in two other schools. - Changes related to a specific educational experience in a postgraduate Diploma course

are being studied in detail. During this course, students took part in a series of free group discussions around topics of current concern in the design studio. The transcripts of tape recordings of the discussions are being analysed and students' performance in these and in their academic work will be related to their performance in psychological tests.

122. *Student performance in University assessments in relation to individual characteristics*

R. COX

Sociology, the University of Essex

1967-

Purpose: A comparison is being made between a number of different forms of student assessment - traditional essay examinations, pre-set questions, course work, projects and language examinations. The aim is to explore how different students react to the varying constraints and opportunities presented by different forms of assessment and to help to clarify the meaning of these different forms by looking at the characteristics of students who do well or badly. A large number of tests of aptitude and personality are used together with questionnaires on the students' backgrounds and aptitude, but amongst the main sources of information are long tape-recorded interviews which cover not only their preparation, attitudes and reactions to examinations and other assessments, but broader aspects of their life at university and hopes for the future. It is hoped this work will contribute to a more flexible approach using a variety of means of assessing students in higher education.

T E A C H E R S

123. *Professional development of school teachers: two years beyond training*

D. MARSLAND

Research Unit, the University of Brunel

1969-

Purpose: Follow-up study of a cohort of students whose professional development has earlier been examined closely in an analysis of professional socialisation in a college of education. Objectives are to examine change and development in role-conception and professional identity post-college and to relate this and earlier data to distribution in different types of school and community, present status, morale, etc. Practical significance: relevance of teacher career. Theoretical significance: contribute to sociology of role, career socialisation.

124. *Selection in secondary and higher education and the recruitment of teachers in Scotland*

A. F. McPHERSON

The Scottish Council for Research in Education

1966-69

Purpose: To establish the level of scholastic ability and educational attainment of recruits to the teaching profession in relation to the total pool of such ability and attainment available in the fifth year of secondary school and the final year of university; also to examine the relationship between ability,

attainment and aspiration at successive stages of the career and that between attainment and final choice of occupation, in the light of factors such as social mobility, educational level of parents and siblings.

125. *An analysis of the verbal classroom interaction between student teachers and children*

E. C. WRAGG

Education, the University of Exeter

1969-

Purpose: Over 100 students doing the Exeter University Postgraduate Certificate of Education are being observed by six trained observers during their 12 weeks' teaching practice in secondary schools. The observers collect data by making live classroom observations of the students' lessons using the Flanders system of Interaction Analysis. (The Flanders system is a ten category system which analyses verbal interaction between teachers and children. Every three seconds the observer notes down a category which best describes the kind of talk taking place, so that praise by the teacher is category 2, a question by the teacher is category 4, a child's reply is category 8 and so on.) - In addition a number of written tests of personality, intelligence, creativity and values have been completed by the students. - Analysis of the test scores and the classroom interaction data collected from some 600 lessons will provide considerable information about what influences classroom behaviour, how students change during teaching practice, what 'patterna' can be identified for different subjects, and what if anything, is common to groups of student teachers assessed as 'good' or 'bad' by tutors and schools. - Finally the research may provide important information for those involved in training new or experienced teachers, as pairs of teachers can learn the system and try to analyse and improve each other's teaching.

126. *The occupational requirements and training needs of graduate secondary school teachers*

N. J. GEORGIADES and D. S. MAY

Occupational Psychology, Birkbeck College, the University of London

1969-

Purpose: The advent of a set of guiding principles known as the 'Design of Instructional Systems' or 'The Technology of Training' has given to those concerned with occupational training a means by which a more systematic approach to training can be developed. This research covers the first phase of a project which utilises these principles, to obtain a systematic description of the work skills of the secondary school teacher in order to delineate specific training objectives for a reappraisal of the training, particularly, the one-year Post Graduate Certificate of Education course. The information gained by this approach will be complemented by a study of the teacher role expectations, held by headteachers, administrators, teacher trainers, etc. The findings will be most directly relevant to other comparable one year courses, but they would also carry considerable implications for three-year courses as pursued in colleges of education.

127. *Tutorial schools research programme*

H. M. ADAMS, Dr C. LACEY

Educational Studies, the University of Sussex

1969-

Purpose: The study can best be described under two headings - the professional socialisation: an organisational study of the Tutorial Schools system of teacher training at Sussex. In the professionalisation section of the research we are interested in the process by which individuals selectively acquire the values and attitudes, the interests, skills and knowledge of the teaching profession. We hope to study the changes that take place in four samples of graduates as they move through their one year of training (Cert. Ed) and their first year of teaching. The samples will be chosen to allow comparison to be made between the different methods of training and different ways of becoming a teacher, including the uncertificated method of entry and the Tutorial Schools of training. - The organisational study will centre on the Sussex University, Tutorial Schools method of teacher training. The scheme sets up a new relationship between the school and university and school teachers are involved both in the school based and the university based training of student teachers. The aim of this part of the research will be to assess the impact of the scheme in a variety of organisational settings (a wide variety of schools are represented in the scheme). Also to isolate those factors that encourage or inhibit its effectiveness.

T E C H N I C A L

128. *Wastage in national certificate courses*

G. J. POLLOCK, Dr D. A. WALKER

The Scottish Council for Research in Education

1966-70

Purpose: The present failure rate in National Certificate courses is approximately 75%. The information obtained from the project should throw light on some of the reasons for this extremely high failure rate.

129. *Courses for craftsmen*

R. B. FORBES, A. D. WEIR, Dr D. A. WALKER, G. J. POLLOCK

The Scottish Council for Research in Education

1967-69

Purpose: The pattern of further education courses is changing rapidly and a knowledge of the attitudes of students, staff and employers towards the existing courses would be helpful in any future developments.

130. *Further education - technical colleges research*

B. M. MOORE

National Foundation for Educational Research

1960-68

Purpose: A study in three colleges of further education, aimed to assess those factors of ability, attainment, interest, attitude and socio-economic background, which seem to contribute to the progress of students in their chosen courses and careers. Considerable attrition and wastage of the sample has occurred; the details have been carefully studied. The implications for test validation and educational/vocational guidance have been examined.

U N I V E R S I T I E S

131. *A comparative analysis (educational and social) of increasing enrolments, 15-18*

Dr E. J. KING

Education, Kings College, the University of London

1970-

Purpose: In several European countries enrolments in full-time education to the age of about 20 (mainly to 18 in Britain) are doubling every decade, or nearly so. The organisation and programme of schools and colleges at this age level evolved on the assumption that they would cater for between 8% and 10% of the population, instead of proportions exceeding 25% or 50%. They also suited a more static occupational structure, a less changing body of knowledge, and a better supply of teachers. The research will examine the dimensions and implications of increased enrolment in upper-secondary and lower-tertiary education, as well as experiments in train to cope with them - especially in the non-university group and the new higher education group. It will co-ordinate three aspects: sociological and contextual studies of curricular change and teaching-learning relationship; and comparative and poly-oriented analysis. Co-operation with continental research centres is assured. The aim is to discern common phenomena, likely trends and indications for policy and method in Britain and other Western European countries.

I. EDUCATIONAL RESEARCH POLICY

A.1 Agencies which promote educational research

(a) Council for Social Science Research (Sveavägen 166, S-113 46 Stockholm) which (since 1959) has a department for psychology and educational sciences.

(b) National Board of Education (S-104 22 Stockholm), which (since 1962) has a research and development bureau with a school research section.

(c) Office of the Chancellor of the Swedish Universities (S-103 26 Stockholm), which (since 1969) has a research and development bureau with a special research section.

(d) Bank of Sweden Tercentenary Fund (Drottninggatan 16, S-111 51 Stockholm), which started giving grants in 1965.

(e) Swedish Board for Technical Development (S-100 72 Stockholm), which (since 1970) has a council for educational technology.

(f) Educational Research Committee (*Pedagogikutredningen)*, located at the Ministry of Education (S-103 10 Stockholm): Governmental *ad hoc* committee appointed in 1967 to review the organisation of educational research institutes, the training of researchers and the priority fields for research (will finish its work in 1970).

A.2 Finance

Educational research is, with marginal exceptions, supported solely from governmental funds. Grants for basic research are given mainly by agencies (a) and (d) above, while the research funds of agencies (b), (c) and (e) are used for applied research and for research and development projects.

Funds for educational research (millions of kronor)

	1968-69	1969-70	1970-71	1971-72 (according to plans)
(a) Social Science Research Council	0.8	1.1	*	*
(b) National Board of Education	5.8	6.4	8.6	13.2
(c) Office of the Chancellor of the Universities	0.6	0.8	1.2	2.0

	1968-69	1969-70	1970-71	1971-72 (according to plans)
(d) Bank of Sweden Tercentenary Fund **	0.9	1.2	*	*
(e) Board for Technical Development	-	0.2	0.6	1.5

* figures not available
** figures refer to calendar years, 1968 and 1969

The percentage of total educational expenditure spent on educational research is, for 1970-71, approximately 0.3% in the school sector and approximately 0.1% in the university sector. The corresponding figures for 1974-75 are, according to present plans, 0.8% and 0.6% respectively.

B. Priority fields

The *ad hoc* Educational Research Committee, in a recent report (*Pedagogisk forskning och utbildning*, SOU 1970:22), reviewed the main priority areas for educational research, and listed them in the following order:

- preconditions for education,
- the educational process,
- product analysis and evaluation;
- early childhood education,
- child and youth psychology,
- university and other adult education.

The research and development projects of the agencies responsible for educational research and development /(b), (c) and (e) under A.1 above/ deal with problems in all the areas mentioned. Priorities for research and development are continuously reviewed by the responsible agencies and their consultative committees.

C.1 Information

The Social Science Research Council issues a yearly *catalogue* (in Swedish) with summaries of research reports in the behavioural sciences (psychology, educational sciences and sociology), the data for which are collected from the various research institutes.

A volume with review articles covering various sectors of the Swedish social and behavioural sciences, including educational research, will be published by the Council early in 1971 (in English).

The National Board of Education has a yearly *catalogue* (in Swedish) of on-going educational research, the data for which are collected from the various research institutes.

The National Board of Education also has a newsletter, *Information om skolforskning*, concerning the research projects financed from its funds, there is also an English version, called *School Research Newsletter*.

The Office of the Chancellor of the Universities has a newsletter, *Pu-nytt*, conerning research and development projects financed by its funds, which also has an English version, called *Research and Development in Higher Education*.

The National Library of Psychology and Educational Research (S-104 35 Stockholm) produces a bibliography, with report headings also in English, of Swedish educational research. It is published annually with corresponding bibliographies from other Scandinavian countries in the *Scandinavian Journal of Educational Research* (Postboks 1092, Oslo 3, Norway).

C.2 Influence of research on policy decisions

The research and development agencies for the school and for the university sectors /(b) and (c) under A.1 above/ initiate and co-ordinate research, but their role is also to guarantee that research results are taken into account in long range planning and in the decision-making process. This aspect of their function is very complex. The links between research, development and planning will gradually be strengthened. Various problem areas have to be dealt with, eg how to develop methods of defining and agreeing upon goals and objectives for the educational system, and how to work out efficient structures and techniques for their implementation.

C.3 Dissemination

Dissemination of research results to teachers presupposes information systems, as indicated under C.1 above. The structure and efficiency of these systems is still being developed and improved.

An important part of the dissemination service is arranged through the training - including in-service training - of teachers and other education personnel.

A new dissemination activity was started by the National Board of Education in 1969. It consists of a service with review abstracts (5-10 lines per report) published in-house in a stencilled series and outside the NBE in a periodical, *Utbildningstidningen*. Those who are interested can, by using an order form attached to the abstracts, send for either a longer summary of the report (3-10 pages) or the actual report itself (on loan).

The feedback function from school and university personnel to educational researchers is taken into account in, for instance, the various ways by which participation in the decision-making process is guaranteed.

D. New trends and measures

The present structure of educational research policy, as outlined above, is still being developed. The roles of the various funding agencies, and their relations to each other, have not been specified. There is, as yet, no specific provision for the overall co-ordination of educational research. Such arrangements are, however, now being proposed for other sectors of society (eg defence), and proposals for arrangements along such lines may also come up for the education sector.

Educational research information is at present improved by making the American ERIC research documentation on magnetic tapes available in Sweden, by building up a special service in the National Library of Psychology and Educational Research to help Swedish researchers to develop and improve their search profiles for ERIC and other research information systems, and by gradually making Swedish educational research available also in other countries by feeding report summaries into the computerised information systems.

II. ACTIVITIES OF EDUCATIONAL RESEARCH INSTITUTES

Replies were received from the following institutes:

1. Institute of Education, Göteborg University
2. Department of Educational Research, Göteborg School of Education
3. Department of Educational Research, Linköping School of Education
4. Institute of Education and Educational Psychology, Lund University
5. Department of Educational and Psychological Research, Malmö School of Education
6. Department of Educational and Psychological Research, Stockholm School of Education
7. Institute of Education, Stockholm University
8. Pedagogical Centre, Stockholm
9. Department of Education, Umeå University
10. Department of Educational Research, Uppsala School of Education
11. Institute of Education, Uppsala University

Name of institute: PEDAGOGISKA INSTITUTIONEN, GÖTEBORGS UNIVERSITET (Institute of Education, Göteborg University)

Address: Mölndalsvägen 36, 412 63 Göteborg

Director: Professor Kjell Härnqvist

A. HISTORICAL

1. Year of foundation: 1956

2. The growing importance of the subject matter area, both for teaching and research, led to its foundation.

3. In 1946 a University Commission proposed a successive division of professorships common to psychology and education.

B. STATUS AND PROGRAMME

1. The Institute is part of the Faculty of Social Sciences of Goteborg University.

2. Directing, governing or advisory board: teachers and research workers belong to a collegium, with administrative personnel and students also represented.

3. There are no formal divisions etc but most of the research is organised in project groups directed by the senior research workers of the Institute.

4. Staff in 1970

	Full-time	Part-time
Total	42	33
Teaching and research staff	27	28

5. Total budget

1968	*ca* 1.6 million Sw.cr.
1969	*ca* 2.4 million Sw.cr.
1970	*ca* 3.1 million Sw.cr.

Cost of buildings excluded.

Predominant source of finance: various state sources.

6. Participation in the initial and/or further training of teachers: only in subject matter education for teachers in education and educational psychology. The Institute is also responsible for the doctorate programme in education within the university.

7. Aims, main fields and methods mostly used in the research activities: fundamental and applied educational research, to a large extent based on surveys and field experiments within the school and university systems and often connected with ongoing reform work at the national level. The fields of thesis research is most easily characterised by the following list of theses for the doctoral and licentiate degrees completed during the academic years 1968-69 and 1969-70.

Baneryd, K. *Om könsroller och arbetstillfredsställelse* (Sex roles and job satisfaction)

Bernmalm, S. *Programmerad undervisning vid universitet och högskolor* (Programmed instruction at university level)

Boman, G. *Skolelevers värdering av några faktorer i yrkesarbetet* (Pupils' evaluation of work characteristics)

Elgqvist-Saltzman, I. *Utbildningsanalyser vid filosofisk fakultet* (Curriculum analyses at the faculties of philosophy)

Hammar, J. *En studie av yrkeskrav och arbetsuppgifter avseende yrkeslärare* (A study of job requirements and work characteristics for vocational school teachers)

Larsson, L. and Sandgren, B. *En studie av kreativitetsutvecklingen inom årskurserna 4-9 samt en undersökning av kreativitetens samvariation med intelligens* (Development of creativity in grades 4 to 9 and its correlation with intelligence)

Marton, F. *Structural dynamics of learning* (Göteborg, Studies in Educational Sciences No.5, 1970)

C. MAJOR RESEARCH PROJECTS REPORTED IN THE ACADEMIC YEARS 1968-69 AND 1969-70

C.1 *Mål, Undervisning och Prov i examensämnet engelska (MUP)* (Goals, teaching and examination in English at university level)

F. MARTON

Number of research workers engaged in project: 10

Total time spent on project: 3 years

Purpose: The project has been concerned with training and teaching language proficiency in English as a foreign language at university level in Sweden. The purpose has been to refine the examination system and the teaching procedure successively in an existing educational setting.

Procedure/methods: Test construction and statistical analysis of test results and questionnaire answers. Teaching experiments. It has often been difficult to distinguish project work from ordinary department work and many teachers have been involved in the project work.

Conclusions: One fundamental fact is that the initial differences in language proficiency between students is very great in relation to the gains during the first year of study at university. This simple fact raises many questions concerning goals, teaching, and the examination system. For more specific conclusions see list of references.

References (all in mimeographed report series):

1. Gårdmark, S. *Vad är MUP? Orientering om ett universitetspedagogiskt projekt avseende språkfardighet i engelska* (What is MUP? Information about a pedagogical project concerning language proficiency in English at university level)

2. Marton, F. *Prov och prestationer. Några resultat* (Examinations and performance. Some results)

3. Kjellmer, G. *On active versus passive proficiency in pronunciation*

4. Fransson, A. *Motiv för att läsa engelska, tentamensförberedelser och syn på förhandsinformation om provet i språkfärdighet* (Motives for studying English, preparations for examinations and opinions about the information on the language proficiency test)

5. Marton, F. *Prediktion av språkfärdighet* (Prediction of language proficiency)

6. Fransson, A. and Svensson, L. *Nybörjare i engelska* (First termers in English)

7. Wright, D. *The MCT: What are we testing?*

8. Marton, F. and Gårdmark, S. *The functional relevance of the training task and the improvement of high-level second language proficiency*

9. Svensson, L. *Studieaktivitet och studieframgång* (Study activities and achievement)

10-16. Gårdmark, S. *et al. Testing English as a second language at university level.* A-G

17. Ellegård, A., Svensson, L. and Wallin, E. *Målet för universitetsutbildningen i engelska. Viktning av målkomponenter* (The goal of education in English at university level. Weighting of goal components)

18. Stendahl, C. *Investigating oral and written proficiency in English as a foreign language. A pilot study*

19. Gårdmark, S. and Wright, D. *Teaching English proficiency at university level, with special reference to students with low initial scores*

20. Marton, F. *Epilogue: Three years' research in retrospect*

C.2 *Anpassningsmekanismer i utbildningssystemet* (Adjustment mechanisms in the educational system)

J. BENGTSSON

Number of research workers engaged in project: 2

Total time spent on project: 2 years

Purpose: To study educational choices at the secondary level in relation to achievement, social background and perceived motives. The project is part of the research programme of the 1968 Education Commission.

Procedure: Follow-up questionnaires in grades 9, 11 and 12 to pupils earlier studied in other longitudinal projects.

Reference:

Bengtsson, J. Part of *Report by 1968 Education Commission* to be published in 1971.

D. MAJOR RESEARCH PROJECTS IN PROGRESS

D.1 *Individualstatistik* (Individual statistics)

K. HÄRNQVIST and A. SVENSSON

Number of research workers engaged in project: 3

Starting date: 1961

Completion date: 1971

Purpose: Longitudinal studies of representative national samples of pupils from the age of 13 through the educational system. Pupils born in 1948 and 1953 have been studied by means of 10% samples of the two cohorts, about 10,000 pupils from each cohort.

Procedure: Intelligence and achievement tests were administered at age 13. Background and school data were recorded. Additional information on education is being recorded yearly. Test and questionnaire data are added for some ages.

Selected references:

Härnqvist, K. and Svensson, A. (1964) *En databank för yrkes- och studievals-undersökningar* (A data bank for research on educational and vocational choices) Nordisk Psykologi, p.111-116.

Svensson, A. (1964) *Sociala och regionala faktorers samband med överoch underprestaioner i skolarbetet* (Over- and under-achievement in school in relation to social and regional variables) Mimeo.

Härnqvist, K. (1966) *Social factors and educational choice.* International Journal of Educational Sciences, p.87-102.

Härnqvist, K. and Svensson, A. (1967) *Milieu social, rendement des élèves et orientation scolaire.* Bulletin de Psychologie, p.782-789.

Härnqvist, K. (1968) *Relative changes in intelligence from 13 to 18* Scandinavian Journal of Psychology, p.50-82.

Rovio-Johansson, A. (1968) *Individualstatistikundersökningen 1966. Instrument, population och materialöversikt* (Individual statistics 1966: instruments, population and data collection) Mimeo.

Reuterberg, S-E. (1968) *Val av teoretisk utbildning i relation till sociala och regionala bakgrundsfaktorer* (Choice of theoretical education in relation to social and regional background) Mimeo.

D.2 *Projekt UG - Ungdom i Göteborg* (Project YG - Youth in Göteborg)

B-E. ANDERSSON

Number of researchers engaged in project: 6

Starting date: 1963

Probable completion date: 1971

Purpose: Comparative studies of pupils in grades 8 and 9 between the traditional and the new Swedish school system with special emphasis on personal and social adjustment; psychological and developmental studies among adolescents 14-16 years old.

Procedure/methods: Tests and questionnaires were administered to all 8th grade pupils in Göteborg in 1963 and 1965. Half of the pupils were followed up in grade 9 in 1965 and 1967. Several smaller studies on special groups. In all about 11-12,000 adolescents are included in the studies.

Selected references:

Published book:

Andersson, B-E. *Studies in Adolescent Behaviour* Stockholm, Almqvist and Wiksell, 1969 (Doct. dess.)

Main report series:

Andersson, B-E. and Wallin, E. *UG-63: Instrument, population, genomförande* (Instruments, population and data collection) February 1965.

Andersson, B-E. and Wallin, E. *UG-63: Begåvning, kunskaper, skolmotivation* (Ability, achievement and motivation) February 1965.

Andersson, B-E. and Wallin, E. *UG-63: Upplevelse av skolan som miljö och institution* (The pupil's perception of school environment) February 1965.

Andersson, B-E. and Wallin, E. *UG-63: Fritiden* (Leisure time activities) January 1966.

Lundgren, U. *UG-65: Instrument, population och genomförande. Val av utbildningsvägar i grundskolans årskurs 8* (Instruments, population and data collection. Choice of education for grade 8) May 1967.

Andersson, B-E. *et al. UG-65: Trivsel i skolan. En jämförelse mellan det gamla skolsystemet och grundskolan* (Satisfaction at school. A comparison between the traditional and the comprehensive school system) November 1967.

Andersson, B-E., Lindberg, E. and Sjöstrand, Ch. *UG 63 och 65: Fyra extremgruppsundersökningar om skoltrivsel och fritidsvanor* (School satisfaction and leisure time activities in four comparisons of contrasting groups) February 1968.

Andersson, B-E. and Ekholm, M. *UG 63 och 65: Elevernas omvärldsorientering. En jämförelse mellan det tidigare skolsystemet och grundskolan* (Orientation in society. A comparison between the traditional and the comprehensive school system) May 1968.

Andersson, B-E. *Project YG (Youth in Göteborg): A presentation of background, design, instruments, and populations*. June 1969.

Andersson, B-E., Ekholm, M. and Hallborg, M. *UG 65 och 65/67: Skolsegregation. Förekomst och vissa effekter därav* (School segregation. Existence and some effects) February 1970.

Andersson, B-E. *En beskrivning av forskningsgruppen kring Project UG och dess verksamhet* (A description of the research group of Project YG and its activities) May 1970.

D.3 *Komparativa mål- och processanalyser av skolsystem (Kompass)* (Comparative analyses of goals and instructional processes in school systems) and *Kursplaneinriktad utveckling av metoder för processanalys (Kumpan)* (Curriculum centred development of methods for process analyses)

U. DAHLLÖF

Number of research workers engaged in project (1970): 7

Starting date: 1967

Probable completion date: 1971

Purpose: To test and further develop some theoretical models of the general relationship between, on the one hand, the organisational frames for instruction (such as the characteristics of the class in ability grouping), and, on the other, the curriculum process - in terms of methods of instruction and time for the teaching of different curriculum units - as well as final attainment as measured by marks and achievement tests with special regard to problems of systems evaluation strategies and educational planning.

Procedure/methods: Four sub-projects

(1) Re-analysis of data from earlier studies on ability grouping and the curriculum process. Questionnaire data based on a national sample of different school types at the comprehensive school level (grades 7-9) were systematically related to earlier findings from studies based only on tests (Dahllöf 1967, 1969 a, 1970 a), Bengtsson and Lundgren (1968, 1969).

(2) Empirical field studies in the upper secondary schools (grade 2) in Goteborg, in which extensive questionnaire data from teachers and pupils gathered on four occasions during the school year are related to each other and to intensive data derived from tape-recordings of maths lessons taken in six classes (Dahllöf and Lundgren 1969, 1970).

(3) Recruitment and process studies in vocational schools.

(4) Empirical panel study of the social and attitudinal development in new classes at the upper secondary stage in Alingsås (Nilsson and Patriksson 1970, Patriksson 1970).

Selected references:

Bengtsson, J. and Lundgren, U. (1968) *Modellstudier i utbildningsplanering och analyser av skolsystem. En jämförelse på kunskapsprov i matematik, engelska och svenska mellan grundskolan och det traditionella skolsystemet* (Model studies in educational planning and analysis of school systems. A comparison on achievement tests in mathematics, English and Swedish between the comprehensive school system and the traditional school system) (Summary in English) Kompassprojektet 10. In collaboration with project YG Göteborg: Licentiatavhandlingar från Pedagogiska institutionen, Göteborgs Universitet. Mimeo.

Bengtsson, J. and Lundgren, U. (1969) *Utbildningsplanering och jämförelser av skolsystem* (Educational planning and comparisons of school systems) Lund: Studentlitteratur.

Dahllöf, U. (1967) *Skoldifferentiering och undervisningsforlopp* (Ability grouping and the teaching process) Göteborg Studies in Educational Sciences 2. Stockholm: Almqvist and Wiksell.

Dahllöf, U. (1968) *Målanalys vid planläggning av en akademisk utbildning* (Goal analysis and planning of a university education) In Thomsen, O.B.: Universitetspaedagogiske studier. Odense: Odense Universitetsforlag.

Dahllöf, U. (1969)(a) *Ability grouping, content validity and curriculum process analysis*. Kompassprojektet 13. Göteborg: Reports from the Institute of Education, University of Göteborg 7. Mimeo. (Also in print with Teachers College Press, Columbia University, New York.)

Dahllöf, U. (1969)(b) *The need for models in curriculum planning*. Western European Education 1, 1969, 12-19.

Dahllöf, U. (1969)(c) *Relevance and fitness analysis in comparative education*. In Super, D.E. (ed)(1969) Towards a cross-national model of educational achievement in a national economy. The report of the Lake Mohawk Conference. New York: Teachers College. Mimeo.

Dahllöf, U. (1969)(d) *Operationalising objectives for testing and process analysis purposes*. In Ingenkamp, K. (ed): Methods for the evaluation of comprehensive schools. Pädagogisches Zentrum. Veröffentlichungen. Reihe C: Berichte, Band 20. Berlin: Verlag Julius Beltz.

Dahllöf, U. (1970)(a) *Elevgruppering och undervisning i svenska* (Ability grouping and teaching in Swedish) Göteborg: Rapporter från Pedagogiska institutionen 44, Göteborgs universitet. Mimeo.

Dahllöf, U. (1970)(b) *The materials and methods of implementation in the development of the curriculum. Outline of a model and some illustrations from Sweden.* Paper read at the Conference of Comparative Education Society in Europe, Prague, June 1969. Kompass-projektet 21. Göteborg: Reports from the Institute of Education, University of Göteborg 9. Mimeo.

Dahllöf, U. (1970)(c) *Materials and methods on implementing curricula: A Swedish model.* Curriculum Theory Network 5, Spring 1970.

Dahllöf, U. (1970)(d) *Curriculum process analysis and comparative evaluation of school systems.* Paedagogica Europaea VI, 1970. In print.

Dahllöf, U. and Lundgren, U.P. (1969) *A project concerning macromodels for the curriculum process: A short presentation.* Kompass-projektet 12. Göteborg: Reports from the Institute of Education, University of Göteborg 5. Mimeo.

Dahllöf, U. and Lundgren, U.P. (1970) *Macro and micro approaches combined for curriculum process analysis: A Swedish educational field project.* Paper read at the annual meeting of the American Educational Research Association in Minneapolis, March 2-6, 1970. Kompass-projektet 23. Göteborg: Reports from the Institute of Education, University of Göteborg 10. Mimeo.

Lindgren, M. and Wallgren, I. (1970) *Gymnasistemas frånvarofrekvens och frånvarostruktur* (Frequency and structure of student absence at the upper secondary school) Kompass-projektet 27. Licentiatavhandlingar från Pedagogiska institutionen, Göteborgs universitet. Mimeo.

Lundgren, U. and Lundvall, B-Å. (1969) *Studieeffektivitet - en teoretisk och empirisk studie av effektivitetsbegreppet inom den högre utbildningen* (Study effectiveness - a theoretical and empirical study of the concept of effectiveness in higher education) Kompass-projektet 14. Göteborg: Rapporter från Pedagogiska institutionen. Göteborgs universitet 37. Mimeo.

Lundgren, U.P. and Nilsson, K-L. (1970) *Forskningsteknik för samhällsvetare* (Research techniques for social scientists) Lund: Studentlitteratur.

Nilsson, K-L. and Patriksson, G. (1970) *Alingsåsundersökningen I. Genomförande, instrumentkonstruktion och populationsbeskrivningar* (The Alingsås Study I. Administration, construction of instruments and population descriptions) Kompass-projektet 25. Göteborg: Rapporter från Pedagogiska institutionen, Göteborgs universitet 46. Mimeo.

Patriksson, G. (1970) *Gruppinflytande, kamratval och attitydförändringar i skolan. En teoretisk - metodisk översikt med ett empiriskt bidrag* (Group influence, choice of peers and attitude changes. A theoretical - methodological analysis with an empirical contribution) Kompass-projektet 30. Göteborg: Licentiatavhandlingar från Pedagogiska institutionen, Göteborgs universitet. Mimeo.

Åsberg, R. (1969) *Planering för utbildning i u-land. En redogörelse för vissa planeringsproblem i u-länderna med utgångspunkt i Pakistan* (Educational planning for developing countries) Lund: Studentlitteratur.

D.4 *Projekt Sk - Samhällskunskap* (Civics education)

E. WALLIN

Number of research workers engaged in project: 4

Starting date: 1968

Probable completion date: 1971

Purpose: Within the project some model materials for civics education in the upper grades of the comprehensive school are being constructed. In relation to this, investigation is being made into more basic problems of the planning and design of teaching-learning materials. The work is based on educational technology as a systematic approach to instructional problems. The project aims to find routines for deriving and defining objectives, and is trying to establish in what way planning procedures should be modified to permit the adaptation of teaching materials to objectives.

Selected references:

Dahlgren, H. *et al* (1968) *Analys och tolkning av målen för grundskolan* (Analysis and interpretation of the objectives of the comprehensive school) Projekt Sk, report no. 3.

Dahlgren, H., Linderstam, I. and Wallin, E. (1968) *Studieteknik. En enkätundersökning bland lärare på grundskolans mellanstadium* (Study techniques. A questionnaire study among teachers in grades 4 to 6) Projekt Sk, report no. 1.

Lindblad, S. (1969) *Simulering till spel* (Simulation through games) Projekt Sk, report no. 5.

Sjöstrand, P. (1968) *Att lära välja* (Learning to choose) Projekt Sk, report no. 2.

Thorbjornsson, H. and Wallin, E. (1970) *Försök med tillampad studieteknik* (Experiments with applied study techniques) Projekt Sk, report no. 7.

Wallin, E. (1970) *Om målanalys och målformulering* (Analysis and formulation of objectives) Preliminary version.

D.5 *Långläxa, beting, specialarbete* (Prep, homework and special project work)

Researchers: G. RICHARDSON, M. SIÖÖ

Starting date: 1968

Probable completion date: 1971

Purpose: Follow-up study of the 1964 secondary school reform with regard to the introduction of more independent methods of study.

Procedure/methods: Questionnaires to a national sample of headmasters and teachers about the actual use of new study methods and problems connected with them, supplemented by intensive data from pupils in Göteborg belonging to the Kompass population (see D.3).

Reference:

Richardson, G. and Siöö, M. (1970) *Gymnasisternas nya arbetsmetoder* (The new methods of study for secondary school pupils) LAG-projektet, Skolöverstyrelsen.

D.6 *Fackskoleprojektet* (The continuation school project)

Researchers: S-E. REUTERBERG, A. CARLSUND

Starting date: 1968

Probable completion date: 1971

Purpose: Follow-up study of the 1964 continuation school reform with regard to the relevance of the curricula to the professional duties of former students in their present employment.

Procedure/methods: Questionnaires to a national sample of students from the economics and technical lines of the continuation school who left school in 1967, including questions about prior and present employment, salaries, duties, experiences and attitudes with regard to curriculum content and working methods of the continuation school.

References:

Carlsund, A. (1970) *En avnämarundersökning på fackskolans tekniska linje. Uppläggning, genomförande och några preliminära resultat* (A "consumer survey" of the technical line of the continuation school) Fackskole-projektet 2. Göteborg: Rapporter från Pedagogiska institutionen. Göteborgs universitet 48. Mimeo.

Reuterberg, S-E. (196) *En beskrivning av fackskoleprojektet samt några preliminära resultat från en förundersökning bland f.d. elever på fackskolans ekonomiska linje* (A description of the continuation school project and some preliminary findings from a pilot study of students from the economics line of the continuation school) Göteborg: Rapporter från Pedagogiska institutionen. Göteborgs universitet 40. Mimeo.

D.7 *Tillämpad inlärningspsykologi och studiefardighet (TIPS)* (Applied psychology of learning and study skills)

F. MARTON and L. SVENSSON

Number of research workers engaged in project: 3

Starting date: 1970

Probable completion date: 1973

Purpose: To develop methods of analysis of how information is internationalised in "natural" study situations and how the internal structure is changed as studies proceed. - To describe study skill at an explicit functional level through the application of such methods of analysis.

Procedure/methods: Observation of knowledge output after shorter and longer sequences of study in controlled and "natural" situations. Structural transcription of verbal statements and description of semantic relations between units of such statements.

Reference:

Marton, F. and Svensson, L. (1970) *Vad sager oss det som sägs?* (What are we told by what is said?) Mimeo.

D.8 *Stug-projektet - Studier av generationsmotsättningar* (The Stug project - Studies of the generation gap)

B-E. ANDERSSON

Starting date: 1970

Probable completion date: 1975

Purpose: To develop and test models of the origin of the generation gap - if it exists - and to study some aspects of young people's adoption of the adult role.

Procedure/methods: Follow-up studies, partly of individuals included in Project YG (see D.2) and partly of other groups. Questionnaires and interviews are planned to be used. The project is still at the planning stage.

Reference:

Andersson, B-E. (1970) *Promemoria rörande ett forskningsprojekt angående generationsmotsättningar och upptagande av vuxenrollen* (Memorandum on a research project on the generation gap and the adoption of the adult role)

D.9 *Elevmotivation vid yrkesutbildning* (Student motivation in vocational training)

H. HOLMQVIST

Number of research workers engaged in project: 2

Starting date: 1970

Probable completion date: 1971

Purpose: To study the validity for success in vocational training and retraining of an alienation motivation scale involvement.

Procedure: Administration of the scale to various groups of students in vocational training and retraining.

D.10 *Samspelet grundutbildning - arbetserfarenhet - vidareutbildning inom vissa karriärer i arbetslivet* (Interaction between basic education, vocational experience and further education in certain occupations)

Å. JERKEDAL

Number of research workers engaged in project: 4

Starting date: 1970

Probable completion date: 1972

Purpose: To study how his basic vocational education prepares the individual for his first job, to what extent this first job is influenced by the characteristics of the individual and how he develops from experience gained in it. These aspects are studied and evaluated for subsequent career steps.

Procedure: Interviews with persons in high level occupations within industry and administration.

Name of institute: PEDAGOGISKA INSTITUTIONEN LÄRARHÖGSKOLAN I GÖTEBORG (Department of Educational Research, Göteborg School of Education)

Address: Övre Husargatan 34, S-413 14 Göteborg

Director: Professor Karl-Gustaf Stukát

A. HISTORICAL

1. Year of foundation: 1965

2. Increased demand for educational research of practical school relevance and need for close contact between teacher training and research activities led to the Department being set up by a parliamentary Act based on a government bill.

B. STATUS AND PROGRAMME

1. The Department is part of the School of Education which is separate from the University. The Department is, however, also connected with the University. The professor of the Department is a member of the University Faculty of Social Sciences. Members of the Department teach undergraduate and graduate courses and academic degrees are awarded within the frame of the University organisation.

2. The Department staff constitute a department faculty with decision as well as advisory functions. On higher organisational levels the Rector's Board, the National Board of Education and the University Chancellor's Office have board functions vis à vis the Department.

3. No formal divisions exist though temporary sub-committees are formed for special purposes.

4. Staff in 1970

		Full-time	Part-time
Total	63	52	11

5. Total budget (in Swedish Crowns)

1968	1,834,000	(for research	700,000)
1969	2,228,000	(for research	836,500)
1970	2,578,000	(for research	1,207,000)

Predominant source of finance: The National Board of Education. Other sources have been the Nordic Cultural Commission and the Council for Social Science Research.

6. The Department is responsible for instruction in educational psychology and theory in the training of teachers for primary and secondary schools. This instruction is co-ordinated with teaching practice.

7. Through its university affiliation the Department participates in the training of research workers.

8. The character of the research activities is best represented by references to the project descriptions in the following sections C and D. Briefly, the emphasis is on development and evaluation of instructional programmes and methods, analysis of the educational process, and on problems within special education. Methodologically, empirical and experimental approaches predominate.

C. MAJOR RESEARCH PROJECTS REPORTED IN THE ACADEMIC YEARS 1968-69 AND 1969-70

C.1 *Studies in mental retardation*

K-G. STUKÁT, R. KÄÄRIÄINEN, A. LEWERTH, G. STANGVIK and N. SÖNDERGÅRD

Total time spent on project: 2½ years

Purpose: The aims of the project, which was initiated by the Nordic Cultural Commission as a co-operttive Scandinavian enterprise, were - to analyse concepts and terminology of mental retardation within the Scandinavian countries and in relation to international practice - to develop a self-instructional social sight vocabulary programme for the trainable mentally retarded - to study relations between reading achievement and different (verbal, spatial-inductive and perceptive) functions and function deficiencies in the trainable mentally retarded - to study the effects of different organisational arrangements in special education and analyse the practical implications of the results.

Conclusions: Among the conclusions can be mentioned that it seems feasible to teach a social sight vocabulary to the trainable mentally retarded by a programmed course; that reading achievement among retardates can be analysed in terms of basic cognitive factors; that special class organisation for intellectually retarded pupils should be supplemented or replaced by other organisational arrangements and that new methods of instruction related to individual needs and capacity should be developed and evaluated.

References:

Söndergård, N. (1968) *Enquète vedrörende socialt vigtige signalord og läsemetoder for psykisk utvecklingshämning* (A questionnaire study of social sight vocabulary for mentally retarded with the IQ range of 30-35) Pedagogiska institutionen, Lärarhögskolan i Göteborg.

Kääriäinen, R. (1968) *Några synpunkter på psykisk utvecklingshämning* (Some aspects of mental retardation) Pedagogiska institutionen, Lärarhögskolan i Göteborg.

Stangvik, G. (ed)(1969) *Förberedande studier rörande läsning av socialt viktiga ord i träningsskolan* (Preliminary studies of social sight vocabulary reading with trainable mentally retarded) Pedagogiska institutionen, Lärarhögskolan i Göteborg, Rapport nr 8, 1969.

Lewerth, A., Stangvik, G. (1969) *Läsning av socialt viktiga ord. Ett försök med programmerad undervisning för utvecklingsstörda* (Reading of socially important words. An experiment with programmed instruction for mentally retarded) Pedagogiska institutionen, Lärarhögskolan i Göteborg, Rapport nr 9, 1969.

Kääriäinen, R. (1970) *The factor structure of intellectual abilities and signal sight vocabulary learning at moderate and severe levels of preliterate mental retardation.* Department of Educational Research, Göteborg School of Education, Research Bulletin No. 3, 1970.

Stangvik, G. (1970) *Effekter av spesialundervisning. En kritisk studie og et eget empirisk bidrag* (Effects of a special education. A critical study and an empirical contribution) Pedagogiska institutionen, Lärarhögskolan i Göteborg, Rapport nr 18, 1970.

D. MAJOR RESEARCH PROJECTS IN PROGRESS

D.1 *Didaktisk Process Analys* (Didactic Process Analysis)

Researchers: K-G. STUKÁT, G. BREDÄNGE, B. GUSTAFSSON, G. HALLIN, A. INGVARSON, T. ODHAGEN and E. STIGEBRANDT

Starting date: Autumn 1966

Probable completion date: 1974

Purpose: To find main structures in the instructional process - to relate process structures to prognostic variables on the one hand and effect (products) variables on the other - to compare process structures in different school subjects - to compare process structures in regular classes and special classes - to develop and evaluate new teacher training methods - to develop and evaluate new instruments for student teacher selection and guidance.

Procedure: During the school years 1967-68 and 1968-69 television recordings were made in 60 ordinary and 20 special classes of the sixth grade. Only classes which had had the same teacher for at least two years were included. The recordings covered two days in each class and were carried out by means of mobile TV equipment which was moved from school to school. A selection of the recorded material, chosen by time sampling, was videotaped. In addition, continuous sound recordings of 10 lessons were made.

The video and audio tapes constitute the basic material for process analysis. Data on environment, teacher and pupil characteristics and on learning outcomes were gathered for *inter alia* the following variables:

Environment: Size of school, classroom space, supply of aids.

Pupil characteristics: Intelligence, personality, social class, number of pupils in class.

Teacher characteristics: Age, sex, personality, vocational attitudes, attitudes to children, interest in different school subjects.

Product variables: Achievement tests: Swedish, mathematics, English, social science, science, study techniques, attitudes to school, classmates, teacher, self, other sex, deviant persons, interest for different school subjects.

For the process analysis an observation schedule has been developed. The categories and items in the schedule have been chosen so as to correspond to the hypotheses set forth. For certain aspects rating scales will be used to complement observation.

After the process material has been categorised the following data treatment has been planned: correlation and factor analysis of process variables - testing hypotheses about process-product relations - testing hypotheses about relations between process dimensions and prognostic variables - testing hypotheses about process differences in ordinary and special classes - comparisons of processes in different school subjects.

Exploratory attempts related to new teacher training procedures have been started on a small scale.

Reference:

Stukát, K-G. (1970) *Teacher role in change*. Department of Educational Research, Göteborg School of Education, Research Bulletin No. 4, 1970.

D.2 *Självinstruerande Specialundervisning, SISU* (Self-Instructional Special Education)

K-G. STUKÁT, U-B. BLADINI

Number of research workers engaged in project: 7

Starting date: 1967

Probable completion date: 1972

Purpose: To develop prototypes of self-instructional methods and materials that can serve as a supplement to teacher instruction for pupils with learning difficulties in a diagnostic teaching setting. On the basis of a questionnaire to teachers of special education, a number of fundamentals within the subjects of Swedish and mathematics have been selected for method development. The material is intended to be used by pupils with learning difficulties independently of whether or not they receive special education. Unlike most method-material systems the products of SISU are not intended to cover the entire extent of the subject but only such parts that are of special importance and that are well suited for self-instruction.

To meet the diagnostic requirements, the project is developing, in connection with the instructional material, firstly a set of tests for rough diagnosis at the beginning of each term, and secondly more finely constructed instruments of diagnosis which are identical with the preliminary and final tests in the remedial material. A gap in knowledge can thus be covered by adequate training material.

Procedure: Analysis of the need for self-instruction material in special education. - Goal analyses in Swedish and mathematics. - Preliminary construction of remedial material. - Formative evaluation. - Comparative field evaluation.

References:

Bladini, U-B. (1968) *Målbeskrivningar i ämnet svenska på lågstadiet* (Goal descriptions in Swedish instruction, primary level) Pedagogiska institutionen, Lärarhögskolan i Göteborg, Rapport nr 5, 1968.

Olsson, H. and Österberg, I. (1969) *Målbeskrivningar i ämnet matematik på lågstadiet* (Goal descriptions in mathematics, primary level) Pedagogiska institutionen, Lärarhögskolan i Göteborg, Rapport nr 7, 1969.

Österberg-Karlsson, I. (1970) *Konsonantens teckning efter kort vokal. Konstruktion och utprövning av två programmerade inlärningsmaterial i stavning för lågpresterande elever* (The spelling of consonants after short vowels. Construction and evaluation of two programmes in spelling for slow learners) Pedagogiska institutionen, Lärarhögskolan i Göteborg, Rapport nr 19, 1970.

D.3 *Förskoleprojektet* (The pre-school project)

K-G. STUKÁT, K-A. SVERUD

Number of research workers at present engaged in project: 6

Starting date: 1968

Probable completion date: 1972

Purpose: To develop goal directed and moderately structured learning arrangements and materials for pre-school children aged six.

Procedure: Only part of the total pre-school programme is covered by the project. Priorities chosen: social, linguistic and concept training. The goal analysis within each of these areas has followed the procedure of formulating behaviourally termed goals and hierarchically arranged sub-goals. These goals have guided the development of materials and methods. During 1970 and 1971 field testing of the programme performed will lead to the first report in AT 1971.

D.4 *Göteborg. Undervisningsmetodik i Engelska. GUME* (Göteborg Project: Teaching methods in English)

Researchers: L. LEVIN (project co-ordinator), T. von ELEK, T. LINDBLAD, M. OLSSON, M. OSKARSSON

Starting date: August 1968

Probable date of completion: May 1971

Purpose: To compare different methods of teaching English as a second language. The methods under comparison are the Implicit method, the Explicit-English method, and the Explicit-Swedish method. In all the methods the pupils have systematised drills; in Ee and Es the pupils have analysis and explanations as well. In Ee these explanations are given in the target language and in Es in the source language; in Es comparisons are also made with the corresponding structures in Swedish.

A number of field studies have been carried out in grades 6, 7 and 8 of the Swedish comprehensive school and the results have been partly reported in research bulletins. At the moment a similar study is being performed at the adult level, though with only two teaching methods to compare, one Implicit and one Explicit.

Procedure: In all the experiments, the school class has been the sampling and treatment unit; in the absence of experimental control of background variables, statistical control by means of analysis of covariance has been resorted to. Main effects as well as interaction between teaching method and the pupils' general intellectual ability have been investigated. Thus far the results indicate that the methods under comparison do not produce any differences in learning effects; nor has any interaction (teaching method x ability level) been evidenced.

Conclusions: One conclusion to be drawn from the results is that the argument (in Sweden and elsewhere) about methodological details seems misguided, and attention should be directed elsewhere: the linguistic training of teachers, the personality of the teacher, the social background of pupils, the size of classes, technical aids which facilitate individualisation, etc.

References:

Lindblad, T. (1969) *Implicit and explicit - an experiment in applied psycholinguistics, assessing different methods of teaching grammatical structures in English as a foreign language.* Pedagogiska institutionen, Lärarhögskolan i Göteborg, Rapport nr 11, 1969.

Carlsson, I. (1969) *Implicit and explicit - an experiment in applied psycholinguistics, assessing different methods of teaching grammatical structures in English as a foreign language.* Pedagogiska institutionen, Lärarhögskolan i Göteborg. Rapport nr 12, 1969.

Olsson, M. (1969) *Implicit and explicit - an experiment in applied psycholinguistics, assessing different methods of teaching grammatical structures in English as a foreign language.* Pedagogiska institutionen, Lärarhögskolan i Göteborg. Rapport nr 13, 1969.

Levin, L. (1970) *Implicit and explicit - A synopsis of three parallel experiments in applied psycholinguistics, assessing different methods of teaching grammatical structures in English as a foreign language.* Department of Educational Research, Göteborg School of Education. Research Bulletin No. 1, 1970.

D.5 *Litteraturläsning i grundskolan (LIGRU)* (The reading of literature in the comprehensive school)

Associate Professor G. KLINGBERG

Number of research workers engaged in project: 3

Starting date: July 1969

Probable completion date: June 1972 (phase I, a possible phase II: June 1976)

Purpose: To study the aims, methods, and evaluation of instruction in literature in the Swedish Comprehensive School with pupils between 7 and 16 years of age.

Procedure: The phase now in progress comprises a goal analysis, and a collection of methods of instruction and of instruments for evaluation. The work of the goal analysis has begun with a cataloguing of aims of instruction in literature. Source material was Swedish and foreign curricula, books and articles. The goals are expressed in terms of behaviour and are arranged in accordance with a scheme of classification covering the general objectives of the school (the scheme is constructed by the project). The resulting list of all conceivable objectives is *inter alia* intended to constitute a basis for a requirement analysis. The final object of the goal analysis is to obtain clearer formulations of the sub-goals found in the Swedish Comprehensive School Curriculum of 1969 and to arrange them in an aims programme.

The aims must be attained by methods suitable for the purpose, and it must be possible to check the results by means of suitable instruments of evaluation. In order to provide material for the discussion of these questions, methods employed in Sweden and abroad as well as instruments of evaluation will be collected and catalogued.

The possible phase II will test methods of teaching and evaluation associated with the aims programme in school classes and thereby subject them to continual improvement. It is also planned that pupil analyses will be undertaken parallel to and in combination with these tests.

Reference:

Klingberg, G. (1970) *A scheme for the classification of educational objectives.* Department of Educational Research, Göteborg School of Education. Research Bulletin No. 5, 1970.

D.6 *Microteaching*

K-G. STUKÁT and Ch. BRUSLING

Number of research workers engaged in project: 3

Starting date: June 1970

Probable completion date: June 1972

Purpose: Microteaching is a method for teacher training. As compared with ordinary classroom teaching, the method is "micro" in respect of the length of the lessons, five to ten minutes, the number of pupils, one to five, and the number of teaching skills practised, one at a time. A common procedure in using the method is: a) The student teacher starts with a "base line" teaching. b) The teaching skill to be acquired is demonstrated in a model lesson. CCTV is used for this demonstration. c) The student teacher gets feedback from his own lesson by means of CCTV and a videotape recorder (self-viewing). d) The sequence, teaching - model-viewing - self-viewing, is repeated four times.

The project intends to test, in the procedure described above, the effects of: using a model - using auditive cues contiguous with the relevant behaviours of the model teacher in order to facilitate observations of these behaviours -

the sex of the model teacher and interaction with the sex of the student teacher - self-viewing - the sex of the student teacher.

Method: Laboratory experiments, factorial design 3x2x2x2. N=48. Observations of the four videotaped teaching periods of each subject and observations of videotaped, ordinary classroom lessons a few months later constitute the criterion measurements.

Attitudes to the procedure are measured by means of a questionnaire.

Name of institute: INSTITUTIONEN FÖR PEDAGOGIK, LÄRARHÖGSKOLAN I LINKÖPING (Department of Educational Research, Linköping School of Education)

Address: Box 31 29, S-580 03 Linköping 3

Director: Professor Ingvar Werdelin

A. HISTORICAL

1. Year of foundation: 1968.

2. The Department was founded on state initiative to satisfy an increased demand for qualified educational research and teacher training.

B. STATUS AND PROGRAMME

1. The Department is part of Linköping School of Education. It is also connected with the University of Stockholm, its professor and associate professor being members of the Faculty of Social Science at the University.

2. The Department is headed - under the president ("rektor") of the School of Education - by its director, important matters being settled in meetings of academic staff and student representatives.

3. Sections: A training section and a research section. The research activities are organised in project units, the units being grouped in two research sub-departments under the professor and associate professor respectively.

4. Staff in 1970

	Full-time	Part-time
Total staff (including clerical)	9	10
Teaching and research staff	6	5

Note: 'Teaching and research staff' includes academic staff engaged in research only or in both teaching and research.

5. Total research budget

1968-69	Sw.Cr. 252,000
1969-70	Sw.Cr. 333,000
1970-71	Sw.Cr. 483,000

Source of finance: National government.

Note: Research budget totals above include all research grants/contracts and salaries of regular staff engaged primarily in research.

6. The Department is responsible for the courses of education for all categories of student teachers at the Linköping School of Education. It is also engaged to some extent in the further training of teachers.

7. The Department has just begun to engage in training of researchers. This activity is still rather limited.

8. The Department being recently established, its research profile is not yet very accentuated.

The general objective of the research work is to contribute to the solution of problems in educational practice by means of, if not necessarily applied, at least 'applicable' research.

One main field is - and will be - research on teaching/learning of reading and related communication skills. In this field methods used will be primarily comparative-experimental but also analytic-descriptive. Other fields of research activity are adult education and teacher training.

C. MAJOR RESEARCH PROJECTS REPORTED IN THE ACADEMIC YEARS 1968-69 AND 1969-70

The following two projects were undertaken at the former National School for Educational Research, Linköping, and completed within the present institution.

C.1 *Experimentella studier rörande lässvårigheter på grundskolans lägstadium*
(Experimental studies concerning reading disabilities in grades 1-3 of the comprehensive school)

Researcher: Professor E. MALMQUIST

Staff: On the average two full-time research workers

Time spent: 8 years

Purpose: To study the possibilities of preventing the occurrence of reading disabilities in grades 1-3 of the comprehensive school. - To study the predictive power of conventional school readiness tests. - To construct and standardise reading readiness tests and study their predictive power.

Procedure: A three-year pilot study and a three-year extensive field study (72 classes with in all 1,653 pupils), both using the experimental-control group

method, the experimental condition being reading clinic treatment for potential reading disability cases.

Conclusions: The occurrence of special reading disabilities (as measured through an operationally defined discrepancy between intelligence and reading ability) can to a large extent be prevented through reading clinic treatment during the first school years.

A battery of five reading readiness tests proved to be the most effective predictor of reading ability through grades 1-3; conventional school readiness tests used having notably lower predictive power.

Using the prediction instruments developed in the project the risk of not assigning a potential reading disability case to clinic treatment can be kept at a low level, *if* available clinic resources are distributed so that the proportion of pupils assigned to clinic treatment is greater during the first school term than during subsequent terms, and *if* the selection of pupils for clinic assignment is checked and corrected at regular intervals through grades 1-3.

Reference:

Malmquist, E. (1969) *Lässvårigheter på grundskolans lågstadium. Experimentella studier* (133 pp. Final project report with summary in English) Forskningsrapporter från Statens Försöksskola i Linköping, No. 13. Stockholm: Utbildningsförlaget.

C.2 *Svarskrav och facitsvar vid programmerad undervisning* (Response requirement and information about correct responses in programmed instruction)

Research associate H. U. GRUNDIN under the supervision of Professor E. MALMQUIST

Time spent: 3½ years

Purpose: To contribute to answering the following questions: What effects as to learning time and result have the response requirement (RR) and the information about correct responses (ICR) in Skinner-type programmed instruction (PI)? - Are these effects, if any, different at different age levels?

Procedure: A pilot study and a field study (the latter including 464 students in grades 4-6), both with a multifactorial design: (overt and covert RR) x (100, 50 and 0% ICR) x (grades 4, 5 and 6) x (male and female students), using the same programme and tests for all sub-groups.

Conclusions: Overt RR does not generally entail better learning effect than covert RR. The learning effect of overtRR depends, among other things, on student age and ability, programme length and material to be learned (eg degree of response learning). The Skinner model combination of overt RR and 100% ICR is not generally superior to other combinations investigated.

The efficiency criterion (learning result in relation to learning time) must be considered in the choice of PI models. The less time-consuming covert RR should preferably be used in programmes with few response terms to be learned.

Linear programmes should regularly be evaluated as to learning time and result with and without overt RR, and with and without ICR.

References:

Grundin, H.U. (1970) *Svarskrav och facitsvar vid programmerad undervisning. Bidrag till lösningen av ett praktisktpedagogiskt problem* (200 pp. + appendices, dupl. Final project report) Forskningsrapport från Lärarhögskolan i Linköping, Inst. for pedagogik och pedagogisk forskning. April 1970.

Grundin, H.U. (1969) *Response mode and information about correct answers in programmed instruction: A discussion of experimental evidence and educational decisions.* Mann, A.P. and Brunstrom, C.K.(Eds) Aspects of Educational Technology III. London: Pitman and Sons, Ltd, 65-71.

D. MAJOR RESEARCH PROJECTS IN PROGRESS

D.1 *Undersökning rörande effekten av individualiserad läsoch skrivundervisning i förskolan* (Investigation concerning the effect of individualised reading and writing instruction at the pre-school level)

Professor E. MALMQUIST

Staff: 2 full-time research workers

Starting date: Autumn 1969

Probable completion date: Spring 1976

Purpose: To study the effects of individually adapted reading and writing instruction for 6-year-old pre-school children in comparison with normal pre-school activity with no reading or writing instruction.

Procedure: Preparatory work: Selection and construction of suitable instructional materials; development, through pilot study, of suitable instructional processes.

Main study: Field study using experimental-control group method. 20 groups of 10 pre-school children (E-group) are given reading and writing instruction, while a corresponding number of children from the same pre-schools (C1-group) are given no such instruction. The effect of the experimental instruction in the E-group is also compared with the corresponding effect in a group of children in grade 1 of the comprehensive school (C2-group). - The reading and writing instruction in the E-group is given by competent primary stage teachers. - A follow-up study of groups E and C1 will be carried out in grades 1-3 of the comprehensive school.

D.2 *Undersökning rörande utvecklingen av vissa läs-, skrivoch övriga kommunikationsfärdigheter från 7 till 19 års ålder* (Investigation concerning the development of certain reading, writing and other communication skills at the ages 7 to 19 years)

Professor E. MALMQUIST

Staff: At present one part-time research worker, from next year onwards two full-time research-workers

Starting date: July 1970

Probable completion date: June 1973

Purpose: To describe the development, through the ages 7-19 years, of certain reading, writing and other communication skills, especially as regards the level and rate of development at different grade/age levels.- To study, on the basis of this description, to what extent the objectives of the comprehensive school and the upper secondary school as regards the skills studied have been reached at different grade levels.

Procedure: Preparatory work: Selection and/or construction of tests, to be combined into test batteries; empirical testing of potentially suitable methods for analysis of long-term performance development.

Main study: Collection, description and analysis of test data from samples of about 200 students from each age group. Comparison of the results of this analysis with the results of analyses of educational objectives and curriculae.

D.3 *Studiedagsprojektet. En studie rörande metoder och material för lärarfortbildningens studiedagsverksamhet* (The study day project. An investigation concerning methods and materials for the in-service training of teachers on study days)

H. EKLUND and R. ENGSTRÖM

Starting date: Spring 1970

Probable completion date: Spring 1973

Purpose: To develop adequate models for the in-service training of teachers on study days. (Study day activities are central to Swedish in-service training of teachers. For teachers at elementary and secondary school levels five days each school year are set apart for such activities.)

Procedure: The project will include the following steps: General analysis of goals and methods - Analysis of background factors, mapping the content and scope of present study day activities, investigating the opinions of teachers and school leaders towards specific study day activities and towards present study day activities in general - Material construction and experimental studies.

Alternative forms of study day materials will be developed and studied in experimental situations. Each alternative form of material will be presented to a number of randomly selected teacher groups during their regular study days - Development of models.

D.4 *Kvalitativ utvärdering av lärarutbildningen. KUL-projektet* (Qualitative evaluation of teacher training. KUL project)

Scientific leader: S. MARKLUND

Project leader: T. ERASMIE

Assistant project leader: L. BJURSTAM

Starting and probable completion dates: Measuring instruments and measuring methods are being worked out and tested in 1970-71. In 1971-72 the training of natural science teachers will be studied. The following year the study will comprise language teachers and in 1973-74 social science teachers. Preliminary results will be reported after each study, and a final report of the first phase of the project will be prepared in 1975.

Purpose: The purpose of the project is to study the teacher training process from two main aspects. Partly it is trying to establish to what extent the objectives stated in the teacher training curriculum are achieved, and partly how these objectives correspond to the ultimate criteria of teacher training, ie the functioning of the teacher in the educational process. In other words, is the training process relevant with reference to the demands on the teacher in his work? This project is limited to the study of training of secondary school teachers (special subject teachers). It is co-ordinated with the KUL project of the Stockholm School of Education.

Scope of project: Students with a university degree (about 4 years' university study of 2-3 subjects) are admitted to special subject teacher training. The training period is 1 year. During the first term training includes partly theoretical studies of pedagogy and teaching methods, partly teaching practice at a secondary school for three periods of 3 weeks each. During the second term the trainee teaches at a secondary school under a supervisor.

Within the project several studies will be made, the first one covering trainee natural science teachers. Next year the aim is to study trainee language teachers and the following year trainee social science teachers. A follow-up study will possibly be made two years after the end of the teacher training year.

Collection of data: During the training period the teacher trainees will be given three tests measuring attitudes, knowledge and instructional skills. Furthermore a close study will be carried out concerning the teacher training system, concentrating upon the influences to which the trainees are exposed and how and to what extent the trainees are influenced by different features of this system.

SWEDEN

Name of organisation: PEDAGOGISKA INSTITUTIONEN VID LUNDS UNIVERSITET (Institute of Education and Educational Psychology, Lund University)

Address: Tunavägen 39, Fack, 220 07 Lund 7

Directors: Professor Ingvar Johannesson, Prefekt Per Anders Westrin

A. HISTORICAL

Teaching and examination in education and didactics at the University of Lund began in 1804. In 1907 a special degree called Master of Arts ("filosofisk ambetsexamen") was founded. It required either a mark (betyg) in education or a special course in psychology and the theory and history of education. A professorship in psychology and education was established in 1911. A decision of principle to divide the professorship in psychology and education was taken by Parliament in 1947. The appointment to the new professorship in education and educational psychology was made in 1957.

B. STATUS AND PROGRAMME

1. The Institute is part of the University of Lund.

2. The Institute has an advisory board consisting of all staff members, ie teachers, researchers, secretaries and two members of the student body. The size of this board is approximately 50 persons. Its functions are to give advice concerning curriculum planning and management of the Institute.

3. There are no separate divisions, sections or units. Most teachers give the general courses as well as the courses in psychology. Researchers take part in teaching at the higher levels.

4. Teaching and research staff in 1970

Full-time: 21

Part-time: 35

5. Budget

The budget comprises salaries and a management grant (65,000 Sw.Cr. in the academic year of 1970-71). The predominant source of finance is the Swedish national government. Costs in connection with research are paid by grants from various councils or foundations.

6. The Institute does not participate in the initial or further training of teachers.

7. A varying amount of post-graduate courses are given each semester for training of educational research workers. Students following these courses are aiming for the new Swedish doctorate.

8. The main fields of the research activities are as follows:

- Educational problems at the universities
- Schoolchildren with various types of handicap
- Child development and adjustment.

C. MAJOR RESEARCH PROJECTS REPORTED IN THE ACADEMIC YEARS 1968-69 AND 1969-70

C.1 *Studenters förkunskaper: en universitetspedagogisk undersökning rörande elevprestationer, lärarkrav och lärarskattningar* (What students know when they start various courses at the university and what their teachers require or expect them to know)

M. ERIKSSON

Total time spent on the project: 2 years

Purpose: To study the relationship between the knowledge the students have when they start a new subject and the expectancies the teachers have with regard to this knowledge. To compare different teachers' expectancies. To compare the initial knowledge of different student groups at the university.

Procedure/methods: Instruments: general and specific scholastic tests, rating schedules for the teachers. - Analysis of the tests, the ratings and requirement of different teachers, the test performance of different student groups. The teachers and freshmen at five different university institutes and a few teachers from the *gymnasium* are involved in the study. Number of students: 1,165. Number of university teachers: 40. Number of teachers from the *gymnasium*: 10.

Conclusions: The correspondence between the requirements of the teachers and the performance of their students is in many cases low. Teachers at the same institute differ in their opinions of what can be required of new students. This is not the case with teachers in mathematics at the *gymnasium*. It can *not* be shown that teachers at the *gymnasium* consistently require less (or more) of students leaving the *gymnasium* than teachers receiving the students at the university. In general, the university teachers overrate the knowledge of their new students. This is the case both with teachers who require much and who require little of the students. Teachers at the same institute differ as a rule in their ability to estimate the performance of the student group. There are differences between the institutes with regard to the students' performance in the general tests. Of 19 correlations between results on the initial tests and the mid-term examinations, 15 were statistically significant. The information from the tests does not as a rule contribute to the prediction of which students will pass or fail the mid-term examinations. In general, it is easier to predict the result for individuals with a high rank in the test than with a low.

Reference:

Reports from the Institute of Education, University of Lund, 21, Lund 1970.

C.2 *Primär ADL-träning* (Primary ADL training: Activities in Daily Living for the mentally retarded)

I. LILJEROTH and B. NIMÉUS

Total time spent on the project: July 1968 - July 1970

Purpose: To construct a programme for primary ADL training based on a behaviour modification model, that would be of use in the training schools and in individual training all over Sweden.

Procedure/methods: The programmes were tested not in experimental situations but in ordinary school situations because of the demand that they should be useful all over Sweden. The number of pupils participating in the programme during the last part of the test period was 68. Their levels of retardation were deep, severe and moderate retardation. Programmes pertaining to ADL activities were accomplished in co-operation with both teachers and ward personnel.

The project comprises a method of observing training and measuring self-help skills (Activities in Daily Living for the mentally retarded). The results are to be presented in: *a scientific report*; - *a manual* on primary ADL training; - *a film* to instruct personnel both in school and in wards about objectives and methods; - *a videotape* with more concrete instructions for planning the programme and creating a positive environment; - *pictorial material* to train pupils' perceptual and verbal functions.

D. MAJOR RESEARCH PROJECTS IN PROGRESS

D.1 *Projekt mål-media-evaluering inom odontologisk röntgendiagnostik* (Objectives, instruction and evaluation for dental roentgen diagnosis)

Research committee: K-Å. OMNELL, L. HOLLENDER, P.A. WESTRIN

Researchers: M. ERIKSSON, L. LYSELL, H-G. GRÖNDAHL

Starting date: January 1970

Probable completion date: July 1971

Purpose: Stating relevant, clearly expressed objectives for the courses in dental roentgen diagnosis. Devising new instructional methods and tests in relation to the stated objectives.

Procedure/methods: Enquiry about present and future demands. Groups surveyed: researchers, teachers, dentists, state representatives for dental health, students. - Instruments: questionnaires, instructional experiments.

D.2 *Malformulering och prov. Matematik. Analys I* (Objectives and tests. Mathematical analysis I)

Researchers: Associate Professor K. BJÖRUP, J. BOMAN, S. CHRISTOFFERSSON, K. HALISTE, P.A. WESTRIN

Chairman of the team: P.A. WESTRIN

Co-worker: Associate Professor T. DOMAR and assistants from the mathematical and educational institutes

Starting date: March 1968

Probable completion date: July 1971

Purpose: Stating objectives for Mathematical analysis I, from content analysis of the subject to concrete detail demands in behavioural terms. Constructing prototype examinations with reference to the demands. - Expected results: a product that will suit all university mathematics institutes in Sweden. (All universities are involved in the project.)

Procedure/methods: Analysis of present course descriptions, consultation with experts about expected future demands, and questioning of teachers and students about the utility of the product. - Constructing *diagnostic* tests which all institutes might use and building a bank of questions for examinations.

D.3 *Handikappade elevers integrering i skolklassen* (The integration of handicapped pupils into the school class)

Fil.lic. K. NORDÉN

Starting date: January 1970

Probable completion date: December 1973

Purpose: The new Swedish *Grundskola* aims at integrating all pupils into a common basic school system up to grade 9 in order to create possibilities for co-operation between all pupils at school, also those pupils who are handicapped in various ways in comparison with other children. The special aims of the project can be expressed as follows: To investigate how pupils experience different forms of handicap. - To study social relations and social status of handicapped children in the class. - To create material and methods for co-operative work in the class. - To study the effects of planned experiments in co-operation between pupils in group discussion and group work.

D.4 *Integrering av personlighetsutvecklingen hos särskoleelever i den pedagogiska verksamheten* (Integration of personality development into the education of the mentally retarded)

I. LILJEROTH and B. NIMÉUS

Starting date: July 1970

Probable completion date: July 1975

Purpose: Studying and constructing programmes to integrate personality development into the teaching of the mentally retarded.

Procedure/methods: Observation of important aspects of the early personality development. - Investigation of different possibilities of influencing personality development in a positive direction and finding techniques for this that are applicable in educational situations. - Construction of methods for evaluating the effects of these techniques of stimulating personality development.

Name of institute: PEDAGOGISK-PSYKOLOGISKA INSTITUTIONEN VID LÄRARHÖGSKOLAN I MALMÖ (Department of Educational and Psychological Research, Malmö School of Education)

Address: Fack 200 45 Malmö 23

Director: Professor Åke Bjerstedt

A. HISTORICAL

1. Year of foundation: 1962.

2. The Department was set up in response to the increased demand for qualified educational research and for better teacher training. More specifically, the foundation of the Malmo research department by the state is part of a plan to build up research departments within all major teacher training institutes (*större lärarhögskolor*, here called Schools of Education) in Sweden. The first of its kind (headed by Torsten Husén) was set up in 1956 at the Stockholm School of Education. The second to appear was the department in Malmö.

B. STATUS AND PROGRAMME

1. The Department of Educational and Psychological Research is part of the Malmö School of Education. It is also, however, connected with the University of Lund. The director of the Malmö Department is also a member of the Social Science Faculty at the University of Lund.

2. Since universities and schools of education in Sweden come under different governing bodies, the Malmö Department of Educational and Psychological Research is in a somewhat peculiar position as part of two different hierarchical systems. On the one hand, it is under the president (*rektor*) of the School of Education, especially in its function of being responsible for education and psychology courses integrated with teacher training. The National Board of Education (*Skolöverstyrelsen*) is the governing body for all schools of education in Sweden. Secondly, it comes under the University of Lund and the University

Chancellor's Office (*Universitetskanslerämbetet*) with respect to its academic courses in education and its research training. Most of its research work, however, is done under contracts drawn up in co-operation between research teams, the Director of the Department and some fund-giving authority. In its research functions, therefore, the Department has some degree of independence from both of the two hierarchical systems referred to. Most of the research funding, however, originates at present from the National Board of Education and is channelled through its Research Planning Bureau L-4.

3. The Department of Educational and Psychological Research has no formal sub-divisions, but functions as a single unit. Informally, however, three sections are in operation: Training Section A (responsible for courses in education and psychology, integrated in the teacher training); Training Section B (responsible for courses for university degrees and research training); and the Research Section. The last section, mainly made up of the research projects operating at a particular time, may be sub-divided into three major sub-sections for research (dealing with subject-matter oriented, instructor-oriented, and pupil-oriented research, respectively) and a section for publications and reports. Several of the Department members function in more than one section, however; the three fuctional sub-areas are, therefore, fairly closely integrated.

Composition and programme of the Research Section

Sub-Section I:

Subject-matter presentation

Subject-matter oriented research, educational technology, development of instructional methods and materials.

Main research and development projects

IMU: Development of individualised instruction in mathematics
UMT: Development of methods and materials for German as a foreign language
BIM: Concept learning in school mathematics
Y: Problems in vocational education
FRIS: Essay writing in grades 4-6 in the comprehensive school

Sub-Section II:

Teachers, teachers of teachers, and school leaders

Instructor-oriented research, occupational analysis, selection and training methods, teacher personality and effectiveness.

Main research and development projects

B: Job analysis of school leaders, tutors etc
ITV: Closed-circuit television in teacher training
PIL: Education in teacher training: Job analysis of teachers etc
L: Teacher personality and teacher effectiveness

Sub-Section III:

Pupil development, pupil-pupil and pupil-teacher interactions

Student-oriented research, interaction-oriented studies, socio-psychological and socio-educational analyses of the school situation.

Main research and development projects

S: Three aspects of social training and development
K: Creativity and autonomy in school children
LE: Preparation, process and product in teacher-pupil interaction
VGL: Flexible grouping and team teaching
SD: Student democracy - co-planning on different levels of education
FOL: Pre-school education integrated with primary school education
D: Psychological and educational studies of deaf adolescents
School environmental influence on education
Goals of university training which are independent of specific subject areas studied: Exploratory studies
Decision making in risk situations with information acquisition

Publications section:

Reports and publications - 10 series

1. *Pedagogisk-psykologiska problem* (Swedish-language reports, various problem areas)

2. *Educational and psychological interactions* (English-language reports, sociological and psychological orientation)

3. *Didakometry* (English-language reports, focusing on educational technology and evaluation)

4. *Reprint series* (Journal reprints, usually in English or Swedish)

5. *Testkonstruktion och testdata* (Reports on test construction, in Swedish)

6. *Kompendieserien* (Preliminary text-book versions, literature surveys etc; in Swedish)

7. *Didakometrie und Soziometrie* (German-language reports, usually brief notes on ongoing projects)

8. *Pedagogisk orientering och debatt* (Books, in Swedish)

9. *Utbildning och utveckling* (Swedish-language journal)

10. *Didakometry and sociometry* (English-language journal)

Editor: Å. Bjerstedt

4. Staff in 1970

	Full-time	Part-time
(a) Teaching staff		
Professors	1	
Lecturers	10	
Assistant lecturers	1	5
(b) Research staff		
Professor (same as under (a))	1	
Research co-ordinator	1	
Project leaders	9	1
Experts (on methods and subjects)	5	10
Assistants	27	4
(c) Clerical staff	26	20
	80	40
Total:		120

5. Total budget (in Swedish Crowns per budget year)

	1968/69	1969/70	1970/71
State of Sweden[1] (basic budget)	1,106,000	1,133,000	1,154,000
National Board of Education[2]	2,205,000	2,516,000	3,256,000
Other sources[3]	155,000	418,000	253,000
TOTAL	3,466,000	4,067,000	4,663,000

1)Mainly teacher salaries
2)Mainly one-year allocations for research projects
3)For research; mainly from the Council for Social Science Research

6. The Department is responsible for the courses in education given to all categories of teacher trainees and teachers, at the Malmö School of Education. In addition, teachers in service may follow evening courses in the subject of education up to the level of a doctoral degree. The Department has two training sections:

TRAINING SECTION A

Teacher training under the National Board of Education
(as part of the Malmö School of Education)

Lines:

- Training of teachers for grades 1-3 (Line L)
- Training of teachers for grades 4-6 (Line M)

- Training of specialist teachers, for grades 7-12 (Line A)
- Training of teachers for pupils with special difficulties (Line S)

TRAINING SECTION B

Academic training under the University Chancellor's Office
(as part of the University of Lund)

Training for 20, 40 or 60 points (Swedish *Fil.kand.* degree)

Research training and thesis writing for 160 points (doctor's degree)

7. In co-operation with the University of Lund, special training for educational researchers is given. This training leads to a doctor's degree (160 points). The contents of the studies are as follows:

- Thesis writing	80 points
- Literature studies	40 "
- Courses of methods (design problems, documentation etc)	20 "
- Special courses of different kinds (interaction analysis, educational technology etc)	20 "

C. MAJOR RESEARCH PROJECTS REPORTED IN THE ACADEMIC YEARS 1968-69 AND 1969-70

Within the major projects in progress described under D below, several investigations have been reported during the years 1968-70 (doctoral thesis etc).

D. MAJOR RESEARCH PROJECTS IN PROGRESS

D.1 *IMU - Individualiserad matematikundervisning* (Development of methods and materials for individualised mathematics instruction)

Project leaders: L-M. JIVÉN, C. ÖREBERG

Scientific adviser: B. LARSSON

Number of research workers: 6

Starting date: 1963

Probable completion date: 1972

Purpose: To construct and test materials for individualised instruction in mathematics - To develop suitable instructional methods to use with this material - To study how pupils should be grouped and teachers employed to attain the maximum effect when using this material - To measure, with the help of the material constructed, the effects of fully individualised instruction, possibly by comparison with conventional class instruction.

Procedure: New materials have been constructed for grades 7-9 in the Swedish comprehensive school and tried out in several preliminary versions. The effect of individualised instruction compared with class instruction has been tested in preliminary experiments, and further experimentation has been planned. Team teaching and flexible pupil grouping have been chosen as an organisational model: its effect is studied in a series of experiments.

In these experiments the emphasis is not only on the achievement of the pupils, but also on their attitude development, on the development of their personality and on the development of the social structure in the classes. So far the stress has been on grades 7-9 in the Swedish school system, but ancillary studies have been carried out in grades 4-6 and 10-12.

References (in English):

Håstad, M., Svensson, L. and Öreberg, C. Some facts about IMU. *Reprint Series* (Malmö: School of Education), No. 53, 1968.

Jivén, L-M. and Öreberg, C. The IMU Project: Preliminary plan for investigating the effects of a system for individualised mathematics teaching. *Didakometry*, No. 22, 1968.

D.2 *UMT - Undervisningsmetodik, tyska* (Development of methods and materials for the teaching of German as a foreign language)

Project leader: H. LÖFGREN

Scientific adviser: E. LINDELL

Number of research workers: 4

Starting date: 1965

Probable completion date: 1973

Purpose: The project has a double aim: To investigate scientifically the goals and methods of foreign language teaching - On the basis of this research, to construct a controlled system of study materials for teaching German in the Swedish comprehensive school.

Methods: .The research work and the construction of study materials in the UMT project are based on team-work between scientists, language experts, methodologists, authors, publishers, teachers and pupils. The researchers and the authors transform the results of the basic research into directions for combination and construction of study materials. This material is tested and the process of revision depends on pupil achievement and teacher reaction.

The project work follows four heads: Analysis of prerequisites: goals, pupils and language - Analysis of the educational process in experiments on method - Analysis of products with tests of various kinds - Construction of study materials in accordance with the results obtained under the first three heads.

References (in English and German):

Bjerstedt, A. Current research and development activities at the Malmö School of Education. *Didakometry and Sociometry*, 1969, *1*, 1-42.

Lindell, E. A system of study materials for the teaching of foreign languages. *Didakometry and Sociometry*, 1969, *1*, 91-124.

Lindell, E. Ein Lehrmittelsystem für den Fremdsprachenunterricht: Prinzipübersicht mit Beispielen. *Didakometrie und Soziometrie*, Nr. 6, 1969.

Löfgren, H. Measuring proficiency in the German language: A study of pupils in grade 7. *Didakometry*, No. 25, 1969.

D.3 *Project BIM - Begreppsinlärning i matematik etc.* (Studies of concept learning and concept formation in school mathematics and other fields)

Project and scientific leader: I. WERDELIN

Number of research workers: 4

Starting date: 1966

Probable completion date: 1971

Purpose and methods: In close connection with other studies of mathematics teaching at the School of Education, certain basic problems concerning concept learning and concept formation are studied. In the first place the following aspects have been taken up: The relationship between concept formation and concrete educational materials (several classroom experiments have been carried out) - The 'discovery' method and its importance to concept formation and concept learning (a series of classroom experiments) - The automatisation process when certain materials are being tried out in school (factor analysis and experiments) - Comparison between abstract concepts and concepts based on concrete perception in problem solving and preference experiments (experiments) - The development of independence of concrete perception and concrete material in concept formation (field study).

References (in English):

Persson, B., Werdelin, I. and Wimo, K. Experimental studies of abstract and concrete concepts in problem solving. *Didakometry*, No. 19, 1968.

Sjöberg, K. and Tropé, B. The value of external direction and individual discovery in learning situations: The learning of a grammatical rule. *Didakometry*, No. 18, 1968.

Werdelin, I. The value of external direction and individual discovery in learning situations: The learning of a mathematical principle. *Didakometry*, No. 12, 1966.

Werdelin, I. The value of external direction and individual discovery in learning situations: The learning of a foreign alphabet. *Didakometry*, No. 14, 1967.

D.4 *Project Y - yrkespedagogik* (Problems in vocational training)

Project leader: L. SJÖDAHL

Scientific adviser: B. LARSSON

Number of research workers: 3

Starting date: 1969

Probable completion date: 1973

Purpose: To construct case studies for nursing training and instruments for studying attitudes and problem-solving.

Methods: Critical incident method for collecting case studies - Construction of attitude scales and instruments for studying problem solving - Construction of case studies - Trial and revision of case studies - Experimental studies with control groups to study the effect of case studies in nursing training.

D.5 *Essay writing in the middle stage of the comprehensive school*

Project and scientific leader: E. LINDELL

Assistant project leader: B. NORDLUND

Number of research workers: 3

Starting date: 1970

Probable completion date: 1975

Purpose: To describe "good written language" in linguistic terms - to define some objective measures of written language on the basis of linguistic terms - to plan exercises for language training.

Methods: Sampling of compositions - Analysis of the compositions - Validation of objective measures - Experiments with different exercises.

D.6 *Project B - Befattningsanalyser för utbildning och fortbildning inom skolsektorn* (Job analyses as a basis for education and further education in the school sector: school principals, lecturers on methods, and tutors)

Project leader: K. GESTRELIUS

Scientific adviser: Å. BJERSTEDT

Assistant project leader: A. KLASSON

Number of research workers: 4

Starting date: 1967

Probable completion date: 1971

Purpose: The B project may be described as a project in the field of educational technology, primarily concerned with the production of educational goals, demonstrably relevant to the jobs in question. It is intended that at a later stage the project should concern itself with finding solutions to the problems associated with transforming educational goals into educational content. With the purpose of developing forms of work for systematic educational planning, as well as applying forms of work to some school appointments relevant from the educational point of view, the principal aims of the project are as follows: To work out job analyses for headmasters and directors of studies in the comprehensive schools, lecturers in methodology, and tutors. - To work out suitable routines for the production of job analyses for educational purposes within the sector. - To define, on the basis of job analyses, educational aims and content for the jobs referred to above. - To work out suitable routines for the transference of the content of the job analyses into the definition of educational aims and content. - To make recommendations for educational programmes for the three types of job in question. - To make recommendations, should the material give reason to do so, for changes in the job.

Methods: In order to carry out the job analyses the following methods have been used: interviews, - diary techniques, - questionnaires.

Reference (in English):

Gestrelius, K. Job analyses as a basis for education and further education in the school sector. *School Research Newsletter*, Stockholm: National Board of Education, 1967:5, 1968:13, 1969:11, 1970:25.

D.7 *Project ITV - Intern television* (A study of closed circuit television, mainly as a system of educational technology within an integrated teacher training)

Project leader: B. GRAN

Scientific adviser: Å. BJERSTEDT

Assistant project leader: B. BIERSCHENK

Number of research workers: 3

Starting date: 1963

Probable completion date: 1972

Purpose: To develop a model for systematic construction and evaluation of CCTV programmes - To study a number of questions that are brought up when CCTV is used as a sub-system in integrated teacher training, eg the shape of pre- and post-treatments of programmes, the use of video recordings to show teacher trainees their own teaching ("self-confrontations"), the construction of video-taped behaviour tests of the simulator type, etc.

Methods: The project is divided in two relatively independent sub-projects: Development of prototypes of material-method systems. In this a number of programmes have been and will be produced for training in teacher education. Some of these programmes will be used in somewhat more systematic research in accordance with the aims of the project. - Self-confrontation via CCTV in teacher training. This is designed as a two-factorial experiment. Questionnaires, personality tests, and content analysis of spontaneous comments are included.

References (in English and German):

Bierschenk, B. Television as a technical aid in education and in educational and psychological research: A bibliography. *Didakometry*, No. 24, 1969.

Bjerstedt, Å. CCTV and video recordings as "observation amplifiers" in teacher training. *Education Television International*, 1967, *1*, 300-312.

Bjerstedt, Å. Das ITV Projekt: Internes Fernsehen in der Lehrerausbildung. *Didakometrie und Soziometrie*, Nr. 2, 1967.

Bjerstedt, Å. Schwierigkeiten und beobachtungstechnologische Möglichkeiten in der Lehrerausbildung. *Zeitschrift für erziehungswissenschaftliche Forschung*, 1968, *2*, 59-82.

Bjerstedt, Å. Critical decision situations on video-tape: An approach to the exploration of teachers' interaction tendencies. *Didakometry and Sociometry*, 1969, *1*, 54-76.

Bjerstedt, Å. Current research and development activities at the Malmö School of Education. *Didakometry and Sociometry*, 1969, *1*, 1-42.

D.8 *Project PIL - Pedagogik i lärarutbildningen* (Education in teacher training based on job analysis of teachers)

Project leader: B. GRAN

Scientific adviser: Å. BJERSTEDT

Assistant project leader: G. LÖFQVIST

Number of research workers: 5

Starting date: 1968

Probable completion date: 1973

Purpose: To select, with the aid of job analysis of teachers, those functions of the teacher which seem most to require special training; - To collect information on interactional situations typical and critical for teacher training according to experts and observations; - To develop outlines for a comprehensive methods-and-material system for education, thereby exploring the usefulness of both closed and open systems; - To try out and evaluate the methods and materials developed, adapting them to various specialisations (age levels and subject-matter orientations).

Methods: Text analyses, interviews, questionnaires, and observations as a basis for job descriptions and situational catalogues; - Construction in steps of methods and materials; - Effect evaluations; etc.

D.9 *Project L - Lärarlämplighet och lärarpersonlighet* (Teacher effectiveness and teacher personality)

Project leader: P. SUNDGREN

Scientific adviser: Å. BJERSTEDT

Assistant project leader: B. HÖGLUND-ANGEL

Number of research workers: 2

Starting date: 1962

Probable completion date: 1971

Purpose: To answer the following and similar questions: To what extent is it possible to predict teacher efficiency at the lower and middle stages of the Swedish comprehensive school on the basis of psychological tests and other instruments given before the teachers begin their education at teacher training institutions? What variables or combinations of variables are most useful?

Methods: Three main types of variables have been used: Prediction variables: test variables from the entrance examinations, - Intermediate criteria: rating variables and marks given during the training period, - Terminal criteria: data found when testing the pupils of the teachers on several occasions to get "product criteria".

References (in English or German):

Bjerstedt, Å. Interaction-oriented approaches to the assessment of student teachers. *J. Teacher Education*, 1967, *18*, 339-357.

Bjerstedt, Å. Current research and development activities at the Malmö School of Education. *Didakometry and Sociometry*, 1969, *1*, 1-42.

Bjerstedt, Å. and Sundgren, P. Teacher personality and teacher effectiveness. *Educational and Psychological Interactions*, No. 20, 1967.

Bjerstedt, Å. and Sundgren, P. Interaction tendencies, personality and teacher effectiveness. *Scand. J. educ. Res.*, 1968, *12*, 51-90.

Bjerstedt, Å. and Sundgren, P. Lehrereignungs- Prädiktoren, Lehrer-Schüler-Interaktion und Produkt-Kriterien. *Didakometrie und Soziometrie*, Nr. 4, 1968.

D.10 *Project S - Social utveckling och fostran* (Three aspects of social training and development)

Project and scientific leader: Å. BJERSTEDT

Assistant project leader: B. YEBIO

Number of research workers: 5

Starting date: 1967

Probable completion date: 1972

Purpose: To map three essential aspects of the social development of children in the comprehensive school. - To explore different possibilities of influencing this development in a direction considered desirable. - To develop experimental methods of evaluating the effects of such attempts at modifying social development.

Three different aspects are studied within the project: Co-operativeness (adequate intra-group communication and handling of conflicts); - Optimum authority and propaganda resistance (ability to take an independent stand, resistance to persuasion not founded on facts); -'World-mindedness' (the understanding and feeling of responsibility for development, also in other countries, resistance to the tendency to look down upon what is different, etc).

Methods: The mapping has been carried out by means of observations, questionnaires, and objective tests. Experimental small group techniques have been included. Systematic construction in steps of certain study materials will be tried out.

References (in English):

Bjerstedt, Å. Current research and development activities at the Malmö School of Education. *Didakometry and Sociometry*, 1969, *1*, 1-42.

Yebio, B. Measuring 'world citizen responsibility': A preliminary test battery. *Educational and psychological interactions*, No. 34, 1970.

D.11 *Project K - kreativitet* (Creativity, autonomy and techniques of learning)

Project and scientific leader: Å. BJERSTEDT

Assistant project leader: G. HANSSON

Number of research workers: 2

Starting date: 1968

Probable completion date: 1972

Purpose: To construct and evaluate tests for the identification and measurement of autonomy and creativity, - To study the relation of creativity and autonomy tests to variations in age, intelligence and personality, - To develop methods for systematic education for autonomous and creative behaviour, on the basis of, among other things, explorative studies of the ways in which autonomy and creativity are visible in school situations and perceived and treated by teachers, and - To study the effects of certain aspects of such methods.

Methods: Construction and evaluation of group tests for the identification and measurement of autonomy and creativity, - Investigations of the opinions of teachers, by questionnaires, - Exploratory observational studies in school situations, - The drawing-up of a methodological plan with the aim of supporting autonomous and creative behaviour tendencies, - Studies of some of the effects of such a plan.

In the test analytic study, certain creativity, autonomy and personality tests have been tried out. The opinion of teachers on certain questions about creativity in school are being collected. In an exploratory observational study, an observational schedule has been used to examine different types of cognitive activities in teaching.

D.12 *Project LE - Lärar-elev-interaktion* (Preparation, process and product in teacher-pupil interaction)

Project and scientific leader: Å. BJERSTEDT

Assistant project leader: G. ANKARSTRAND-LINDSTRÖM

Number of research workers: 2

Starting date: 1967

Probable completion date: 1971

Purpose: The construction, evaluation, and improvement of different methods of observation and registration, applicable when complex didactic processes are being studied - Partial mapping of the structure of the didactic interaction (focusing on certain categories of variables, eg teacher personality and the social perception of teachers, effects on the pupils as to independence and co-operativeness) - The formulation of more definite models for didactic interaction - Possible recommendations for application.

Methods: The studies are carried out both as observations of 'natural' classroom situations and as small group experiments (video-recorded 'micro-teaching' with mirror viewing). The small group studies typically use a three-phase paradigm: preparatory phase, process phase and product phase.

References (in English and German):

Bjerstedt, Å. Current research and development at the Malmö School of Education. *Didakometry and Sociometry*, 1969, *1*, 1-42.

Bjerstedt, Å. Das Lehrer-Schüler Projekt: Präparation, Prozess und Produkt im didaktischen Verlauf. *Didakometrie und Soziometrie*, Nr. 1, 1967.

Bjerstedt, Å. Preparation, process and product in teacher-pupil interaction. *Educational and Psychological Interactions*, No. 28, 1968.

D.13 *Project VGL - Varierande gruppstorlek och lagundervisning* (Flexible grouping and team teaching)

Project leader: G. RUDVALL

Scientific leader: O. MAGNE

Number of research workers: 3

Starting date: 1969

Probable completion date: 1973

Purpose: The project is a research and development project in co-operation with the Group for Educational Development of the Malmö City School system. The general purpose is to evaluate experiments with flexible grouping and team teaching, which started in Malmö in 1963. The project has concentrated on grades 7-9 in the comprehensive school, but also studies some aspects of experiments in the secondary school.

Methods: The VGL research project is working with two main types of investigation: *Extensive charting* of the general way in which work is done in some of the VGL schools in comparison with others, eg by collecting data on organisation and on the attitudes of teachers and pupils. - *Field experiments* in a few schools focusing upon specific subject-matter areas during limited time periods. These experiments are to be preceded by careful goal and material analysis.

D.14 *Project SD - Studerandedemokrati* (Student democracy - co-planning at different levels of education)

Project and scientific leader: Å. BJERSTEDT

Assistant project leader: B. VALIND

Number of research workers: 4

Starting date: 1968

Probable completion date: 1972

Purpose: To map existing forms of student influence on various levels of education and related characteristic interaction patterns in the student groups and between students and other involved groups; - to study attitudes and opinions related to existing co-operation forms; - to study typical patterns in a process of innovation from socio-psychological and cognitive points of view, when new procedures of student influence start or are successively worked out; - on the basis of surveys and innovation experiments to try to make recommendations of future development.

Methods: Interviews, questionnaires, tape-recordings, analyses of various official documents, sociometric tests and personality tests are used in the studies.

References (in English and German):

Bjerstedt, Å. Current research and development activities at the Malmö School of Education. *Didakometry and Sociometry*, 1969, *1*, 1-42.

Bjerstedt, Å., Bierschenk, B. and Löfgren, H. Probleme der Schuldemokratie. *Didakometrie und Soziometrie*, No. 5, 1968.

D.15 *Project FÖL - Förskola-lågstadium i samverkan* (Pre-school education integrated with primary school education)

Project and scientific leader: O. MAGNE

Assistant project leader: B. GRAN

Number of research workers: 2

Starting date: 1970

Probable completion date: 1974

Purpose: The project is a research and development project in co-operation with the Group for Educational Development of the Malmö City School system. It has three main aims: to investigate methods and materials in order to improve the pre-school curriculum; - to investigate connections between the pre-school and the primary school, in order to explore the potential value of a non-graded school comprising children between the ages of 6 and 10; - to investigate the frequency of socially handicapped children and to try to find methods to integrate them with other children between the ages of 6 and 10.

Methods: Revision and construction of methods and materials; - construction of a model for a non-graded school form with emphasis on integration of socially handicapped children and their adaptation to other children; - construction and revision of instruments to evaluate the effects.

D.16 *Project D - Psykologisk-pedagogiska studier av döva ungdomar* (Psychological and educational studies of deaf adolescents)

Project leader: K. NORDÉN

Scientific adviser: B. LARSSON

Number of research workers: 1

Starting date: 1965

Probable completion date: 1971

Purpose: To develop psychological methods for the assessment of deaf subjects as an aid to educational and vocational guidance.

Methods: In constructing a test battery, care has been taken to include tests making it possible to measure a wide range of functions: reasoning, spatial ability, perception, mechanical aptitude, dexterity, verbal, numerical and mathematical ability. In order to study construct validity, data have been treated by factor analyses. At present the research is concerned with the study of sub-groups within the deaf group. Accordingly, the statistical method used is latent profile analysis.

Reference (in English):

Nordén, K. The structure of abilities in a group of deaf adolescents. *Didakometry and Sociometry*, 1970, 2, 1-25.

D.17 *Skolmiljö* (School environmental influence on education)

Project leader: B. GRAN

Scientific adviser: O. MAGNE

Number of research workers: 2

Starting date: 1970

Purpose: To explore possible effects of type of school building and school environment on the educational process.

Methods: Observations, interviews, etc.

D.18 *Goals of university training which are independent of specific subject areas studied: Exploratory studies*

Project leader: Å. BJERSTEDT

Starting date: 1970

Purpose: To seek answers to questions of the following type: Is there a consensus on such goals of university training as are independent of specific subject areas? - What are the major sub-goals involved? - How are they ranked for importance? - How are they and how should they be evaluated?

Methods: Text analyses, interviews, etc.

D.19 *Beslut i risksituationer med informationsköp* (Decision making in risk situations with information acquisition)

Project and scientific leader: B. LARSSON

Number of research workers: 2

Starting date: 1969

Completion date: 1971

Purpose: The study aims at describing how efficiently individuals seek and use information in risk situations analogous to fixed binomial sampling for simple hypothesis testing. Comparisons are made between behaviour in real and hypothetical situations, and the way in which this behaviour is related to intelligence is also being studied.

Methods: The real situations are performed as a 3x3x3x3-factorial individual experiment. The hypothetical situations are performed as a group test and constitute one third of the individual experiment.

References (in English):

Larsson, B. *Bayes strategies and human information seeking.* Lund: CWK Gleerup, 1968.

Larsson, B. Efficiency of some Bayesian decision procedures. *Didakometry*, No. 26, 1970.

Name of institute: PEDAGOGISKA INSTITUTIONEN LÄRARHÖGSKOLAN I STOCKHOLM (Department of Educational and Psychological Research, Stockholm School of Education)

Address: Fack S-100 26 Stockholm 34, Rålambsvägen 7, VII

Directors: Professor Torsten Husén
Professor Bengt Olov Ljung

A. HISTORICAL

1. Year of foundation: 1956.

2. The demand for qualified educational research and for the students at the school of education to participate in and to follow research and developmental work in education led to its foundation on state initiative.

B. STATUS AND PROGRAMME

1. The Department is part of the Stockholm School of Education. It is also connected with the University of Stockholm. The director of the Department is also a member of the Social Science Faculty at the University of Stockholm.

2. No directing board.

3. The Department has no formal sub-divisions, but functions as one unit. The research is done within different research projects.

4. Staff in 1970

		Full-time	Part-time
Total	100	80	20
Researchers		44	7
Teaching staff		13	-
Others		23	13

5. Total budget

1967-68	1,250,000 Sw.Cr.
1968-69	1,600,000 Sw.Cr.
1969-70	1,700,000 Sw.Cr.

The budget does not include salaries for the teachers and part of the permanent staff, who are paid directly by the School of Education.

The predominant sources of finance are the National Board of Education and the Council for Social Science Research.

6. The Department is responsible for the courses in education and psychology given to all categories of teacher trainees and teachers at the Stockholm School of Education, including elementary school teachers, subject-matter teachers for the secondary level, special teachers for students with learning difficulties, etc. In addition, teachers in service may follow evening courses in the subject of education up to the level of a doctoral degree.

7. About 60 students at the doctoral level and 80 students at a lower level are trained in educational research.

C. MAJOR RESEARCH PROJECTS REPORTED IN THE ACADEMIC YEARS 1968-69 AND 1969-70

Among others the following projects have been reported in English (the Department has also a research bulletin in Swedish, which can be supplied):

C.1 Gustavsson, K., Naeslund, J. *Closed circuit television (CCTV) at the Stockholm School of Education May 1967 - December 1969.* Department of Educational and Psychological Research School of Education, Stockholm 1969. Research Bulletin No. 12.

A presentation of the Closed Circuit Television system at the Stockholm School of Education.

C.2 Husén, T. *et al.* *Talent, opportunity and career.* Almqvist and Wiksell, Stockholm 1969.

This book reports an unusual research project. In 1938 all the third graders in Malmö, Sweden, most of them at age 10, were given an intelligence test. Their home background was carefully mapped out and their school records were canvassed in order to examine the relation between social background and ability as measured by intelligence test and teacher ratings. Since then the 1500 subjects have been followed up. Thus actuarial information pertaining to educational career, criminal behaviour, income and contacts with social welfare authorities has been collected. About 80 per cent of the original population completed an extensive questionnaire which provided additional information about educational and vocational careers as well as present family situation.

The major part of the report deals with the predictive value of social background, tested intelligence and teacher ratings at the age of 10 for later success in terms of educational and vocational careers. One chapter is devoted to a special follow-up of the mentally retarded. In another chapter criminal behaviour is related to the early indicators of social background and ability. In a final chapter sex differences pertaining particularly to careers are reported.

C.3 Ljung, B-O., Naeslund, J. *Interview method in the selection of applicants for teacher training.* A study of the reliability of judgments of video-taped interviews. - School of Education, Department of Educational and Psychological Research, Stockholm 1970. Research Bulletin No. 14.

The study is concerned with some aspects of the problem of reliability of interviews of candidates for teacher training. Particular attention is paid to the inter- and intra-individual variation in the judges. Ten video-taped interviews, six to eight minutes long, were played to different groups of judges. The groups of judges consisted of readers in method, and students of educational psychology, who were to rate and rank the persons interviewed in respect of their suitability as teachers. Of the twenty-four students of educational psychology, twenty-two were teachers. A group of the latter made new judgments after six months.

C.4 Ljung, B-O., Naeslund, J. *Judging student teachers.* Agreement in judgments of student teaching and the validity of video-taped applicant interviews. - Department of Educational and Psychological Research School of Education, Stockholm 1970. Research Bulletin No. 15.

Twelve student teachers were visited at the end of their practical training term by eight judges. Four of these were readers in method and four tutors at the training school attached to the Stockholm School of Education. About fifteen months previously (autumn 1967), the four readers in method had judged the trainees' suitability as teachers on the basis of video-taped interviews (Ljung and Naeslund, 1970).

Each judge paid one visit to each student teacher, and devoted about 30 minutes to listening to the trainee's teaching and 15 minutes to discussion and guidance. The task of the judges was to rate and rank the trainees from the aspects of suitability and skill.

C.5 Naeslund, J. *Attitudes of students towards closed circuit television in teacher training.* Department of Educational and Psychological Research School of Education, Stockholm 1969. Research Bulletin No. 13.

The report gives an account of some studies made in connection with four CCTV programmes, produced at the Stockholm School of Education, on the principles of instruction laid down in the *Läroplan* (Curriculum Plan).

The studies deal among others with the attitudes of student teachers towards CCTV.

C.6 Pidgeon, D.A. *Expectation and pupil performance.* Almqvist and Wiksell, Stockholm 1970.

One of the aims of the monograph has been to draw attention to certain motivational aspects of school performance which, in comparison with the study of innate ability or intelligence, do not appear to have received the attention they deserve. In particular the argument has been developed that the attitudes and beliefs that educationists hold with respect to the concept of intelligence exert an influence both on the way an education system develops and on the classroom practices of the teachers within it.

D. MAJOR RESEARCH PROJECTS IN PROGRESS

D.1 *Closed circuit television in teacher training (ITV-LHS)*

Project leader: J. NAESLUND

Number of staff: 2

Starting date: October 1968

Probable completion date: 1971 (1972)

Purpose: Production and evaluation of CCTV programmes for teacher training. - To study, with the help of CCTV, the reliability of subjective judgements.

Methods: Mainly measurement of attitudes - Analysis of inter- and intra-individual variation in judgments.

Summary: The need for CCTV programmes in teacher training has been surveyed. - For instruction in education and methods programmes have been produced for the concretisation of theoretical tuition, thereby to achieve better integration between theory and practice. - Programmes of an auscultation replacing character have been constructed within the project. - Interviews with 12 applicants for teacher training were video-taped. The tapes were judged by different groups of judges, and by the same groups at different times. Criteria data were collected for studies of validity. - Twelve teacher trainees were given four different "mini-lessons", all of which were taped. The 48 taped lessons were judged by a group of six experts on two occasions with an interval of six months between them.

D.2 *Development of personality in pre-school children*

Project leader: I. WILLIAM-OLSSON

Number of staff: 4

Starting date: January 1970

Timetable: Collection of data 1970-71; processing and reporting 1971-72

Purpose: Description of disturbed children's personality development during a pre-school year.

Methods: Observations, individual tests.

Summary: Development of personality, expressed in cognitive, social and attitude functions, in emotionally disturbed children in the pre-school is to be compared with that in 'normal' children at the beginning and end of a pre-school year. The predicted effect is that emotionally disturbed children achieve less than the control group at the beginning of the year, but that the differences will be smaller between the groups at the end of the year. Emotional disturbances are estimated by tissue conductivity and teachers' ratings. Personality development is studied under the variables: comprehension, creativity, explorative behaviour and ability to collaborate.

D.3 *Adult education - supply and participation.*

The project comprises three sub-projects:
- *Adult education in Sweden 1967-68 - a structural survey*
- *Participation in three environments - a social analysis of participants in adult education*
- *Drop-out rates in five forms of adult education*

Project leaders: T. ELIASSON and B. HÖGLUND

Number of staff: 4

Starting date and timetable: The first sub-project was begun in the spring of 1968, and is to be finished in the autumn of 1970. Preparatory work and certain sub-studies on sub-projects 2 and 3 were carried out during 1969 and 1970. Sub-project 2 will be completed mainly during 1970-71, and sub-project 3 1971-72.

Purpose: To elucidate three fundamental problems of interest to all types of adult education. Sub-project 1: What types of adult education exist, what is characteristic of the different types, what distribution is there between them? Sub-project 2: What groups are reached by the supply of adult education, and what groups are not? Sub-project 3: What students manage to complete their studies, and who are the drop-outs in the various types? What factors cause discontinuation of studies?

The first sub-project provides a basis and conditions for the second, which, in turn provides these for the third. Together the three sub-projects are intended to provide a basis not only for continued research but also for the planning of adult education. They are, therefore, of an investigatory nature, and are intended to fill some of the gaps which have handicapped both the planning of research and practical work in education.

Methods: The methods used vary from one sub-project to another. Project 1: Mainly questionnaires, interviews and the compilation of already existing, but much scattered sources. Sub-project 2: Questionnaires sent by post, complemented with a scrutiny of register data and interviews with local bodies organising adult education. Sub-project 3: Scrutiny of registers of students in the different types of adult education, complemented with focusing interviews with smaller samples.

Summary: The project as a whole is intended to give clear and fundamental information about the greatly differentiated, rapidly expanding and changeable and, to a great extent unknown, adult education, which, by being distributed among a large number of organisations outside the regular system of education, and in other ways, besides being mainly voluntary, contains several problems of a specific kind. The three main problems the project attempts to solve are the structure of the supply, participation and the recruitment systems, as well as the frequency of drop-outs.

D.4 *Physical education in grade 8*

Project leader: S. HENRYSSON

Number of staff: 2

Starting date: Spring term 1967

Timetable: Report to be submitted in 1971

Purpose: To give information on the content of physical education and pupils' attitude towards it.

Methods: Questionnaire; descriptive study.

Summary: The project is intended to throw light on the following problems: The present design of physical education and teachers' attitudes to various problems pertaining to the content and aims of the instruction. - Attitudes of pupils towards content and aims of physical education. - Pupils' practice of athletics in their spare time.

D.5 *Qualitative evaluation of teacher training (KUL)*

Project leader: S. MARKLUND

Number of staff: 6

Starting date: Autumn 1968

Probable completion date: 1974

Purpose: To study whether the goals set up for teacher training with the reorganisation in 1968 are attained, and to ascertain whether these goals are relevant in view of the demands that will be made on the trainees in their future work.

Methods: Questionnaires, observations, interviews, analyses of content and tests of knowledge.

Summary: The project follows a year group of class teacher trainees through their training. During this time, a number of questionnaires will be submitted to school administrations, teachers and pupils in order to elucidate the social and educative processes in the school of education system. In addition, candidates will take a number of tests of knowledge. Combined with these measurements, certain intensive studies will be made at one or two schools of education. The purpose of the project is also to get in touch with a selection of the trainees after they have been active for some time as teachers. In this phase of the work, the methods used will be mainly interviews and observations with a view to elucidating the relevance of the present aims of teacher training.

D.6 *The Västmanland Investigation (VMU)*

Project leader: B-O. LJUNG

Number of staff: 2

Starting date: January 1970

Timetable: 1970-74 (A later follow-up study may be made)

Purpose: Follow-up and analysis of the further education and occupations of the year-group of pupils in the county of Västmanland in grade 9 in the academic year 1965-66.

Methods: Background data collected in grades 7, 8 and 9; successive follow-up since 1965-66 by, among other things, the questionnaire method.

Summary: The study will ascertain how choice of education, actual education and choice of occupation, the general adjustment of the individual and experience of shortcomings in own education and training are related to different background data. - Among specific problems analysed are the importance of socio-economic factors for recruitment to different lines of education, the effect of the socio-economic structure of school classes, the experience of immigrants, and the situation of poorly achieving pupils.

D.7 *The Malmö study* - Continued follow-up of 1,500 pupils who were enrolled in grade 3 in Malmö schools as of 1938, and of their children

Project leader: T. HUSÉN

Number of staff: 3

Starting date: 1938 (This part July 1970)

Timetable: This part of the study will go on till 1973

Purpose: To follow a population of 1,500 individuals from age 10 to 43

Method: Follow-up study

Summary: The research has been going on since 1938. A summary of the study from 1938-65 is found in Husén *et al* (1969) Talent, Opportunity and Career. Stockholm: Almqvist and Wiksell.

Among problem areas considered to have special relevance for a further follow-up of the Malmö population are the following:

What importance has social background had in receiving education over the span of two generations?

To what extent do children of parents who had difficulties in school encounter similar difficulties?

In what ways are income and occupational status at the age of 45 related to school and adult education and social environment during the formative years?

D.8 *Course of development and growth in children aged 9 to 16 years (SLU)*

Project leader: Y. NORINDER

Number of staff: 2

Starting date: 1965

Timetable: Planned in the first place up to 1972-73 (A continued follow-up for a few years after the termination of compulsory school attendence is desirable)

Purpose: To throw light on the effects of genetic and non-genetic factors in respect of status and speed of development, by using longitudinal studies.

Methods: An anthropometrical part covering stature, weight and observations of development of secondary sex characteristics; Health card data; Questionnaire method referring to home background and behaviour in school, teacher and peer estimates; Pedagogical and psychological tests.

Summary: In 1965, data were collected from forty or so towns in Sweden. The pupils were then in grade 3. The 'nucleus' of the material comprises both twins (600) and a number of their classmates of the same age (1,000). After a follow-up for five years, the same pupils were in grade 6 in about 60 school districts. Complete data referring to physical development, health and home situation, etc, were obtained for about 70 per cent of the nucleus material. All pupils in classes containing twins took part in the psychological and pedagogical tests, which were set by years. This 'standard' material of about 9,000 pupils is used for certain normalisation and various special follow-up studies.

D.9 *Marks and test results in grade 9 (GPU)*

Project leader: Y. CARLSTEN

Number of staff: 1

Starting date: January 1967

Timetable: Report in 1971

Purpose: To relate marks from different groups of pupils to test results.

Method: Description.

Summary: Marks and test results from five tests of knowledge and a test of intelligence for *ca* 2,000 pupils in the one-letter streams in grade 9 have been collected in conjunction with the *gymnasium* prediction study (GPU). The marks, which have been reported separately earlier, relate to the results of tests of knowledge and intelligence.

D.10 *Construction of tests for equalising marks in people's colleges (FHÖSO)*

Project leader: K. EK

Scientific leader: S. HENRYSSON

Number of staff: 2

Starting date: September 1970

Probable completion date: June 1971

Purpose: The construction of a test battery, the principal purpose of which is to serve as a basis for as reliable a judgment as possible of the level of individual people's colleges and standard deviation in respect of assessments of studies.

Methods: Analyses of what is judged when assessments of studies are made. What is implied in the concept of study ability. Discussion of what can and should be measured in this context. Construction of test items, evaluations and revisions. Discussion of principles according to which students are to be tested, rating scale, voluntariness, anonymity, etc.

Summary: No marks are awarded in people's colleges. On the other hand, students are entitled to ask for an assessment of study ability. Since such assessments are largely decisive for whether a student is to be allowed to enter another educational institution, it has been regarded as imperative to attain as uniform an assessment as possible. The test was set during April 1970 at all but a few people's colleges. *Ca* 8,800 students replied to the whole test. Evaluation was made on all students. A four-point scale was used.

D.11 *Independent work in the* gymnasium *(SAG)*

Project leader: E. LÖVGREN

Number of staff: 4

Starting date: July 1965

Probable completion date: July 1970

Purpose: To study the condition for and the outcome of a considerable amount of independent work by pupils by a reduction of direct instruction by the teachers, and the utilisation of the time for pupils' work in school.

Method: Explorative field studies.

Summary: Study material: In 1969, *Historia på egen hand* for the first year of the *gymnasium*, with instructions for teachers, was published. An experimental edition for the second year is being drawn up. In principle the books have a common course, with reinforcement tasks. These are of different degrees of difficulty and take more or less time to deal with. Each chapter in the books is provided with a task concerned with the pupils' work on the text. - Successive tests have been made with duplicated versions of the study material. - A summative evaluation was made in the autumn of 1968 of a printed version of *Historia på egen hand* (first year). The purpose of the study was to investigate the use of the book and the method of instruction it contains. Comparisons were made with available traditional material and a comparable group of teachers using the conventional methods of teaching history. The comparisons were concerned with the students' knowledge, skill in study, working situation and interest in the subject, and the working situation of the teachers and the

assessment of material and methods. - A printed version for the second year will be tested in the autumn of 1970. In conjunction with this, information on the students' and teachers' estimation of the material and its use will be collected.

D.12 *Teaching Methods - English (UME)*

Project leader: C. H. von MENTZER

Number of staff: 2

Starting date: July 1965

Probable completion date: February 1971

Purpose: Construction and analysis of a "material-method system" (MMS).

Methods: Goal and content analyses, classroom experiments.

Summary: The work is being carried on according to three general principles: - analysis of conditions, aims and content of tuition in English in grade 7 - analyses of and experiments with forms, conditions and consequences of MMS arrangements of instruction - construction, production and testing of prototype MMS models (hardware and software).

The project is to produce: A report of activities (text and appendices) - A programme for MMS English, grade 7 (text and design) - Prototype material (text and sample set).

D.13 *Teaching Methods - Religious Knowledge (UMRe)*

Project leader: I. FÄGERLIND

Number of staff: 4

Starting date: July 1967

Timetable: Continues until July 1972

Purpose: To investigate how the aim of the school to provide objective religious instruction can be attained in accordance with suitable educational methods and to work out and evaluate methods for this instruction.

Methods: The project will cover three main fields: A study of the set of problems, analyses of the fundamental conditions, methods and goals. - Development of demonstration model lesson proper to plans for the middle forms. - Testing, revision and retesting of the prepared material.

D.14 *International Association for the Evaluation of Educational Achievement (IEA)*

Project leader: T. HUSÉN

Number of staff: 2

Starting date: 1967

Timetable:

1967-70	Construction of test instruments, student/teacher questionnaires, attitude scales, etc
1970-71	Field testing
1971-72	Processing of the information received
1973	The results of the survey will be published

Purpose: To provide evidence to help policy-makers, not only in the participating countries but throughout the world, in the decision making process.

Methods: Cross-national study of educational achievement in six subject areas as related to social, economic and pedagogical factors.

Summary: The aim of the project is to study in a systematic way how the educational outcome in certain subject areas in the different school systems is related to features of school organisation, curriculum practices and teacher characteristics, technological factors, etc, in the twenty countries participating in the research. The first subject area studied by IEA was mathematics. The results of that survey were published in 1967. IEA is now continuing its research studies in three subject areas: science, reading comprehension, literature.

In Sweden four samples of students have been tested: 10-year-olds, 14-year-olds, students in the last grade (grade 9) of the comprehensive school, students in the pre-university grade. During 1970 approximately 11,000 students and 8,000 teachers from 450 schools took part in the survey. In the next part (1971) IEA will test three other subject areas: English and French as foreign languages and civics education.

D.15 *Education in the year 2000*

Project leader: T. HUSÉN

Number of staff: 1

Starting date: January 1969

Timetable: Report to be submitted during the autumn of 1970

Purpose: To contribute to the discussion of the future planning of education.

Methods: Interviews, conferences, questionnaires, studies of literature.

Summary: The work implies the collection and compilation of data which, in the widest meaning of the term, can be considered to be (or should be) relevant to the development of education during the rest of the present century. These data have been collected by interviews with representatives of the receivers of students from the various educational institutions and representatives of boards of education and political agencies (Ministry of Education and Ministry of Finance). Trade organisations are also represented. Furthermore, intensive

one-day discussions with experts from various fields of education have been conducted. The result, mainly in the form of a discussion, will be reported in a publication now in progress.

Name of institute: PEDAGOGISKA INSTITUTIONEN
(Institute of Education, Stockholm University)

Address: Gästrikegatan 10, Box 6033, Stockholm 6

Director: Professor Arne Trankell

A. HISTORICAL

Year of foundation: 1953.

B. ORGANISATION AND PROGRAMME

Present staff

		Full-time	Part-time
Total	100	40	60

All teach and do research.

Main fields of research activity:

Socio-educational problems (change of society)
Criminology, especially problems of treatment and staff training
Immigration and immigrant and minority group problems
Adaptation and adjustment
Political problems
Psychotherapy

C. MAJOR RESEARCH PROJECTS REPORTED IN THE ACADEMIC YEARS 1968-69 AND 1969-70

C.1 *Adjustment of school children*

Researcher: J. BLOMQVIST, University of Stockholm

The study was completed and published in 1969.

For a description see D.3 in Educational Research, European Survey 1968, Volume I, p. 102.

C.2 *A school striving towards an ideal construction in its organisational and pedagogical patterns*

Researcher: P. RAMPAL

The study was completed and published in 1969.

For a description see D.5 in Educational Research, European Survey 1968, Volume I, p. 104.

C.3 *Gypsy rehabilitation project of Stockholm*

Researchers: I. TRANKELL and A. TRANKELL

Final reports were published in spring 1970. For a description of the project see D.6 in Educational Research, European Survey 1968, Volume I, p. 104.

D. MAJOR RESEARCH PROJECTS IN PROGRESS

D.1 *Ideologi och pedagogik. Studier i uppfostrans och påverkans målsättnings-problem* (Ideology and education. Studies in the aims of education)

Researcher: O. ANDERSSON

Starting date: Autumn 1967

Probable completion date: Parts of the studies will, it is hoped, be completed during 1971.

For a description see D.1 in Educational Research, European Survey 1968, Volume I, p. 101.

D.2 *Minoritetsgruppens dynamik. En studie kring minoritetsgruppsmedlemmars anpassningsprocess* (The dynamics of the minority group: A study of the adjustment of the minority group member)

Researchers: H. GORDON and L. GROSIN

Starting date: Spring 1965

Completion date: 1971

For a description see D.2 in Educational Research, European Survey 1968, Volume I, p. 101.

D.3 *En psykologisk och pedagogisk studie av förändringsprocesser i läramas arbete vid vuxenskolan för zigenare i Årsta gamla skola i Stockholm*
(A psychological and educational study of changing processes in the work of the teachers at the school for gypsy adults in Årsta, Stockholm)

Researcher: P-J. ÖDMAN, Institute of Education, Stockholm University

Starting date: September 1967

Probable completion date: 1971

For a description see D.4 in Educational Research, European Survey 1968, Volume I, p. 103.

D.4 *Undervisningsevaluering; om nödvändigheten och nyttan av information från (av) och om de studerande. Rapport 1* (Course evaluation; on the necessity and utility of having information from and about the students. Report 1)

Researchers: L. FRANZÉN and L. MÄHLCK

Purpose: To demonstrate the necessity and the opportunities of having rapid and well differentiated information flows from the students for course evaluation purposes.

Procedure/methods: Analyses and interpretations of student attitudes towards their study situation and student opinions on the instruction received in low-level university courses in educational psychology.

This comprehends: diagnosing the opinions of *all* the students in the sample concerning different aspects of the courses (ie literature, instructional forms, examinations, etc) - relating the student opinions to background data, which means relating them to different groups, in terms of previous professional experience, vocational interests, motives for studying the subject, etc - testing the quality of the questionnaires used, by item analyses.

The techniques of analysis involved cross-table analyses by means of computer data processing.

Population: 500 non-randomly sampled individuals out of 900 students who followed the low-level courses in educational psychology at the University of Stockholm, autumn 1969.

About a quarter of the students had had at least two years continuous professional experience. About the same percentage (25%) was engaged in professional work concomitantly with the studies. There was a high correlation between age and professional experience. The aspirations, the interests in and the opinions given on the subject of these students were in several respects different from those of the freshmen or younger university students. The older and professionally more experienced students thus: complained less of the volume and the difficulty of the course literature - were more satisfied with teacher performances - rated the goal achievement of the courses higher (alternatively: somewhat less critical) - were least positive to oral group examinations.

Considering the growing importance of the proportion of older students engaged in university studies, the differences found in attitudes and opinions emphasises the necessity of planning courses more adapted to these categories of student.

D.5 *Behovsanalys som underlag för planering av akademisk undervisning på institutionsnivå* (Analysing the needs for education as a base for planning instructional processes at the university level)

Researcher: D. MÅRTENSON

Purpose: To find out what needs and functions an instructional process at the university level can fulfil and, in connection with that investigation, propose planning procedures for analysing the needs university education may fulfil in different subjects.

Procedure/methods: Through discussions with members of a research group which is attempting to create working models for defining objectives, methods and evaluation, a theoretical analysis of the problem has been produced. After discussions with teachers at the Institute of Economics at the University of Stockholm the report has been revised.

The aims of the report are: to initiate continuous discussions among teachers, researchers and students about those needs that could be fulfilled by the instructional processes - to give a basis for considering and awarding priorities to those needs that are judged to be relevant to fulfil - to give a basis for the shaping of useful work routines for analysing needs, in function with the institute's resources.

Name of organisation: PEDAGOGISKT CENTRUM, STOCKHOLM
(Pedagogical Centre, Stockholm)

Address: Fack, S 104 35 Stockholm 23

Director: Laborator C. H. Björnsson

A. HISTORICAL

1. Year of foundation: 1966-67.

2. The work of development of education had to be intensified and systematised by teamwork between scientists, teachers and other experts.

3. The Stockholm Local Educational Authority took the initiative in founding the Centre.

B. STATUS AND PROGRAMME

1. The Centre is a section of the Stockholm Local Educational Authority.

2. There is an advisory board for mutual information and discussion of planning and also completed projects; 15 members. (The Director of Education, inspectors of schools, representatives of headmasters and teachers in Stockholm).

3. Section 1: grades 1-6
Section 2: grades 7-9
Section 3: upper secondary education
Section 4: vocational schools
Section 5: adult education

4. Staff in 1970

		Full-time	Part-time
Total	30	18	12
Researchers	19	10	9

5. Total budget

1968	720,000 Sw.Cr.
1969	929,230 Sw.Cr.
1970	1,151,600 Sw.Cr.

Predominant source of finance is the local government.

6. The Centre does not participate in the training of teachers nor in the training of educational research workers apart from in-service training of its own staff.

7. The aim is innovation in the internal work in the schools. The main fields are didactic research, instruction analysis and special education. The methods are investigations, questionnaires, tests, interviews, etc.

C. MAJOR RESEARCH PROJECTS REPORTED IN THE ACADEMIC YEARS 1968-69 AND 1969-70

C.1 *Svårighetsgradering av tysk text för svenskt skolbruk* (Grading of difficulty of German texts for Swedish schools)

Responsible researcher: C.H. BJÖRNSSON

Number of research workers: One and an expert group of ten teachers

Total time spent on project: 1 year

Purpose: To investigate whether the Swedish instrument for measuring the degree of difficulty of school texts (Lix) may also be applied to German texts in general, as to school texts in particular.

Procedure: The Swedish readability formula is this simple equation: Word length + Sentence length = Lix. Lix is an abbreviation of *läsbarhetsindex* (readability index). The formula is a result of two investigations, which are reported in Björnsson, C.H. *Läsbarhet*, Stockholm 1968.

The German study had two parts. The first was to test the instrument - and some other readability factors - on the German language. As was the case with the Swedish investigation, it could be shown that the instrument covered about 90 per cent of the variation of degree of difficulty to be found in a comprehensively composed text battery (Report No. 6).

The second part was to produce standardisation tables for interpreting Lix when German texts are used in Swedish schools. It was made through teachers' and pupils' grading of a large battery of school texts. The results are given in Report No. 5, which also contains a list of more than 700 readability-tested books and texts.

References:

Björnsson, C.H. *Lix för tysk skoltext* (Lix for German school texts) Report from the Centre No. 5.

Björnsson, C.H. *Lesbarkeit durch Lix* (Readability through Lix) Report No. 6.

C.2 *Svårighetsgradering av dansk text för svenskt skolbruk* (Grading of difficulty of Danish texts for Swedish schools)

Responsible researcher: C.H. BJÖRNSSON

Number of research workers: 3

Total time spent on project: 1 year

A project similar to C.1 (see above).

Reference:

Björnsson, C.H. *Lix på danska* (Lix in Danish) Report from the Centre No. 9.

D. RESEARCH PROJECTS IN PROGRESS

D.1 *Försok med en ny inskolningsmodell för nybörjare* (Experiments with different methods of settling in new school pupils)

Responsible researcher: C.H. BJÖRNSSON

Number of research workers: 3

Starting date: 1969

Probable completion date: 1972

Purpose: To compare the results obtained from two different methods of treatment for intellectually, emotionally and socially divergent beginners (commonly called 'insufficiently mature for school').

Procedure: Comparing two methods: Placing the children into a class preparing immature children for school attendance. - A new method implying that the children are kept in an ordinary class but with several supporting measures being applied.

Individualising: The experimental classes are getting a specially trained teacher with several functions such as taking part in teaching and in planning the tuition for certain pupils. The school psychologists make more frequent classroom visits. There is increased co-operation with parents and with institutions outside school.

Testing: The new type of adjustment to school was tested in two headmaster districts, the number of classes for beginners was 16. The preparatory testing was not intended to discover whether improved intellectual, emotional and social development could be obtained by means of the new type of adjustment to school, only to see if the projected measures were practicable.

Further training: In spite of certain problems, experience from the preliminary testing is so positively good that continuation of the experiments is justified. The experiments can not be carried out, however, without qualified further training of the teachers and improved information.

The next phase of the project is to answer the fundamental question - whether the the new method provides better intellectual, emotional and social development than the other arrangement, special classes preparing immature children for school attendance.

D.2 *Lästräning på mellanstadiet (LÄMMEL)* (Reading practice in the middle level)

Responsible researcher: C.H. BJÖRNSSON

Number of research workers: 3

Starting date: 1968

Probable completion date: 1971

Purpose: To give pupils of grades 4-6 adequate reading practice. The reading programme is made up of a great number of reading texts of three different degrees of difficulty, followed by technical reading practice. The goal is that all pupils - independent of their reading ability - get reading material suitable for their age. Great importance is attached to critical and creative reading.

Procedure: A taxonomy of the cognitive and affective dimensions of reading has been elaborated as well as an analysis of relevant research. In a survey intended for teachers in Stockholm the present state of and the needs for reading

material and training have been described. A new type of reading test has been developed. The original texts are written by authors of childrens' books. The expert team of the project (15 teachers and other reading specialists) examine the texts. The research workers produce training and guidance material. In accordance with a proposal from the National Board of Education, which gives financial support to the project, it is limited so far to grade 4.

D.3 *Svårighetsgradering av engelsk text för svenskt skolbruk* (Grading of difficulty of English texts for Swedish schools)

Responsible researcher: C.H. BJÖRNSSON

Number of research workers: 2

Starting date: January 1970

Probable completion date: March 1971

Purpose: To investigate whether the Swedish instrument for measuring the degree of difficulty of school texts (Lix) may also be applied to English texts in general, as to school texts in particular (*cf* C.1).

D.4 *Outsiders i skolsamhället* (Outsiders in school society)

Responsible researcher: I. EMANUELSSON

Number of research workers: 2

Starting date: October 1970

Probable completion date: 1973

Purpose: The aim of the study is to map the social climate in some school classes, in grades 7-9 at the senior level of the *grundskola*, and then intensively study the situation of the socially isolated pupils - the outsiders.

In the study we are also looking specially at the social situation of immigrant children. We want to know if their situation generally is different from that of native Swedish pupils.

The main purpose of the study is then to get a better understanding of factors causing the differences of pupils' social status and to search for an answer to the questions: Why are some pupils isolated or 'mobbed' and others popular?

Procedure: We intend mostly to use instruments already available. These are: sociometric tests, intelligence tests, personality inventories and interest blanks. Some of the immigrant children are not capable of coping with these instruments in Swedish, so will have to be interviewed in their own language. Furthermore, various kinds of background data are to be collected.

D.5 *Studieavbrott i grundskolan* (Drop-outs and school-rejecting pupils in the compulsory school)

Responsible researcher: I. EMANUELSSON

Number of research workers: 3

Starting date: June 1969

Probable completion date: 1973

Purpose: The overall aim of the project is to study the effects of dropping-out from the compulsory school. Special interest is devoted to the study of how big a handicap it is to be a school drop-out in today's society. By handicap we mean difficulties in adjustment to society and occupational life.

A second aim is to construct models for better treatment of problems with school-rejecting pupils. We will try eg individual programmes, which perhaps will also include some kind of more intensive parental contacts and collaboration.

Procedure: One part of the project work is a follow up of 450 drop-outs from Stockholm schools in the years 1964-68. All kinds of background data were collected. The capability to adjust to society is measured by information from official registers and by a questionnaire. In the questionnaire items are also included to measure attitudes towards school and education - especially further adult education.

A special study of school-rejecting pupils - still at school - will be carried out in grades 7-9 during the school year 1970-71. Special interest is devoted to the study of attitudes and to the effects of school activities on the development of pupils' attitudes towards school and education. We are also studying such manifestations of bad school adjustment as truancy etc.

The results of these enquiries are intended to give suggestions for the construction of models for dealing further with the problems of school-rejecting pupils.

D.6 *Gymnasisternas arbetsbörda* (The pupils' workload in the *gymnasium*)

Responsible researcher: B. AHNMÉ

Number of research workers: 2

Starting date: July 1969

Probable completion date: June 1973

Purpose: To map the working conditions of the pupils - To try different means intended to remove or reduce the influence of circumstances experienced by the pupils as causing stress.

Procedure: Starting from a relatively broad survey of the working situation (by means of questionnaires, interviews, etc) the relevant problems are delineated. Selection among them is made by fairly detailed investigation and by experiments.

D.7 *Gymnasiets betygsättning* (The marking system in the *gymnasium*)

Responsible researcher: B. AHNMÉ

Number of research workers: 2

Starting date: July 1969

Probable completion date: June 1973

Purpose: To throw light on *inter alia* the following questions: How does marking function in relation to the general outlines laid down by the National Board of Education? Which aids are used for marking? What is the effect of information on marking among students, teachers and parents? How is marking and testing experienced by students, teachers and parents? - To try different ways of improving information on marking, to make marking more fair, to reduce the strain which marking and testing may imply among students, teachers and parents. - To develop alternative methods for assessment/evaluation of school activities.

D.8 *Forskning rörande arbetsmarknadsutbildningen* (Research on training for labour market purposes)

Responsible researcher: B. GUSTAVSSON

Number of research workers: 3

Starting date: 1968

Purpose: Training and retraining of adult workers plays today an increasingly important role as part of the adjustment to a changing labour market situation. Between 1960 and 1970 the number of persons trained through labour market policy measures in Sweden grew from 18,000 to 100,000 a year. At the same time the training programme was considerably extended and differentiated. The major part of the training takes place in courses arranged by the National Board of Education at the request of the Labour Market Board.

Up till now a very limited amount of research on this kind of training has been carried out. The aim of the present research is to study several aspects of the training process. Some of the areas of research are the recruitment and selection of trainees, their attitudes and adjustment during training and their employment and job satisfaction after training. Special attention is given to some sub-groups: older trainees, handicapped and women in training.

Procedure: A total of 2,000 trainees at several training centres are involved in the study. Social background, earlier training and job experience is studied by means of questionnaires, physical and mental ability by means of medical examinations and psychological tests, attitudes and adjustment during and after training by means of questionnaires.

SWEDEN

Name of organisation: AVDELNINGEN FÖR PEDAGOGIK, UMEÅ UNIVERSITET OCH PEDAGOGISKA INSTITUTIONEN, LÄRARHÖGSKOLAN UMEÅ (Department of Education, Umeå University and Umeå School of Education)

Address: S-901 87 Umeå

Director: Professor Sten Henrysson

A. HISTORICAL

1. Year of foundation: 1968 (1965 on a preliminary basis).

2. The foundation of the Umeå Department is part of a plan to set up research departments within all major teacher training institutes in Sweden.

B. STATUS AND PROGRAMME

1. The Department is part of the Umeå School of Education and Umeå University. The professor of the School of Education is a member of the Faculty of Social Sciences at the University.

2. The teachers and researchers belong to a 'staff-meeting' with mainly advisory functions to the Director, who is responsible to the School of Education and the University.

3. No formal divisions exist, but research is organised in project groups.

4. Staff in 1970

		Full-time	Part-time
Total	47	32	15
Teaching and research staff		25	11

5. Total budget

1970 1,335,000 Sw.Cr. (Research)

From various state sources: National Board of Education, Office of the Chancellor of the Universities, Council for Social Science Research.

6. The Department is responsible for the courses in education and psychology given to all categories of teacher trainee and teachers at the Umeå School of Education.

7. The Department has a broad programme, but the emphasis is on educational measurement and evaluation. There are several projects on prediction of success and drop-out in higher education. Another special field is physical education. Tests are used very often followed by correlational analyses and ANOVA methods. Surveys with questionnaires are used often. Most of the data is processed on the University computer.

C. MAJOR RESEARCH PROJECTS REPORTED IN THE ACADEMIC YEARS 1968-69 AND 1969-70

C.1 *Prognos av studieframgång vid Umeå universitet* (Prediction of academic performance at the University of Umeå)

Researchers: S. HENRYSSON, I. ELGQVIST-SALTZMAN and C. STAGE

Total time spent on project: September 1968 - December 1969

Purpose: To investigate whether the predictive value of school marks can be improved if test results are added in selection for higher education.

Procedure: Six different groups of beginners (in total about 1,000 persons) in different academic subjects at Umeå University in autumn 1968 were investigated by intelligence test (WIT IV) and questionnaire on different background data (social, educational) and study plans, reason for studying, motivation. The groups were selected to find homogeneous groups with similar study conditions.

Each student's study performance was followed very carefully during one academic year in order to find a more meaningful performance criterion. Product moment correlations and multiple correlations.

Conclusion: The predictive value of marks and tests varies between the different groups but the general tendency was that the predictive value of school marks could be improved by using intelligence tests.

References:

SOU 1970:20, *Behörighet, meritvärdering, studieprognos.* Stockholm 1970, p. 245-273.

Handal, *Universitetsstudier under debatt.* Universitetsförlaget, Oslo 1970, p. 159-193.

C.2 *Prognos av framgång i gymnasiestudier* (Prediction of progress in secondary school studies)

Researchers: S. HENRYSSON, S. FISCHBEIN, G. WENNERSTRÖM, S. JANSSON, Y. CARLSTEN, B-O. LJUNG and G. NORDLUND

Total time spent on project: The investigation started in 1965 and is planned to be finished, for the most part, in 1970-71.

Purpose: To investigate to what extent prediction of success in secondary schools can be improved with the help of tests. At present admission is based on the total of the final marks awarded in the comprehensive school.

Procedure: About 3,000 pupils were investigated attending the eighth school year classes in the spring term of 1965, in Västmanland. These pupils have been followed up through the comprehensive school.

During the spring 1965 tests were drawn up at the school of Education to be used in the spring of 1966 in civics and related subjects, Swedish, English, physics-

chemistry and mathematics. The standard test for the eighth school year, list of marks for the seventh and eighth school years and details of the pupils' parents' or guardians' employment have been collected. The pupils have also taken a group intelligence test (WIT III) and simultaneously with the test, the pupils were required to answer a questionnaire covering various social aspects as well as their attitude to their studies and choice of career. Since January 1970, the project has been divided into two parts, the prediction part, which is being conducted at Umeå and the Västmanland investigation, which is being conducted at the Stockholm College of Education by B-O. Ljung and S. Jansson together with their assistants. That part of the investigation is intended to follow up the material with regard to the lines of study and future choice of career.

References:

Fischbein, S. and Henrysson, S. *Prognos av framgång i högre studier* (Prediction of progress in higher studies) A summary of relevant literature. No. 13, 1966, Pedagogiska Institutionen vid Lärarhögskolan i Stockholm.

Fischbein, S. *Studievägar i gymnasiet* (Lines of studies in the secondary school) No. 12, 1966, Pedagogiska Institutionen vid Lärarhögskolan i Stockholm.

Wennerström, G. *Språklig anpassning och studiefrамgång hos barn till utländska föräldrar* (Linguistic adaptability and progress in studies in the case of children of foreign parentage) No. 18, 1967, Pedagogiska Institutionen vid Lärarhögskolan i Stockholm.

Henrysson, S. *Prognos av framgång i gymnasium och fackskola. Problem, planering och datainsamling* (Prediction of progress in secondary school - problems, planning and collecting data) No. 21, 1967, Pedagogiska Institutionen vid Lärarhögskolan i Stockholm.

Henrysson, S. and Jansson, S. *Rekrytering till gymnasium och fackskola* (Recruiting for the secondary school) No. 25, 1967, Pedagogiska Institutionen vid Lärarhögskolan i Stockholm.

Carlsten, Y. *Betyg i årskurs 9. Betygsnivå och betygsspridning i samtliga ämnen och kurser för eleverna i grundskolans årskurs 9, vårterminen 1966 i Västmanlands län* (Marking the ninth school year. Level of marks and their distribution in the subjects and courses for comprehensive school pupils, spring term of 1966, Västmanland) No. 37, 1969, Pedagogiska Institutionen vid Lärarhögskolan i Stockholm.

Nordlund, G. *Prognos av framgång i gymnasiet. Analys totalt och med uppdelning på kön* (Prediction of progress in the secondary school, part I. Total analysis and analysis following division by sex) No. 5, 1969, Pedagogiska Rapporter, Umeå Universitet och Lärarhögskolan.

Nordlund, G. *Prognos av framgång i gymnasiet, Part II. Analys med uppdelning på linjer* (Prediction of progress in the secondary school, part II, analysis following subdivision by line) No. 6, 1969, Pedagogiska Rapporter, Umeå Universitet och Lärarhögskolan.

C.3 *Poängsättning av samtliga svarsalternativ i multiple-choice uppgifter och dess effekter på reliabiliteten* (The scoring of every response alternative in multiple-choice items and its effects on reliability)

Researchers: S. HENRYSSON and I. WEDMAN

Total time spent on project: About six months

Purpose: To compare the effects of different scoring techniques on the reliability of tests composed of multiple-choice items.

Procedure/methods: 16 items were scored with 1 point for the right answer and 0 for every distractor. The same 16 items were also differentially scored with weights empirically determined. To facilitate the computations only integers were used. Two reliability estimates were computed (KR 20), one for each scoring technique. The reliability for the differential scoring technique was computed from a different sample from that on which the weights were determined.

Conclusion: No difference between the two estimates were found. It was hypothesised that to make an adequate comparison of the two techniques different principles of test construction should be applied.

C.4 *Rekrytering till fackskola och gymnasium i Västerbottens län och Örnsköldsvik hösten 1968* (Recruitment to secondary school in Västerbotten and Örnsköldsvik, autumn 1968)

Researchers: S. HENRYSSON and C-G. ÅSEMAR

Total time spent on project: Six months

Purpose: To analyse and compare marks, intelligence, social class and preference for school form and separate courses among those pupils who applied for the two separate types of upper school education that existed in Sweden in 1968, grammar school and secondary modern school.

Procedure: An intelligence test and a questionnaire were given to about 2,000 pupils.

Conclusion: The attraction of the grammar school was very high, especially among those with high marks. This was shown among other things by the fact that 30% of those admitted to secondary modern school had first applied for grammar school.

The most attractive courses at grammar school were the humanistic-social-scientific course and the natural science course, and at secondary modern school the social studies course.

There was a rather distinct difference between pupils at grammar school and secondary modern school concerning average marks and average intelligence scores. In both cases the pupils at grammar school scored better.

Concerning social recruitment, the pupils at grammar school more often came from higher social classes than the pupils at secondary modern school.

Reference:

Henrysson, S. and Åsemar, C-G. *Rekrytering till fackskola och gymnasium i Västerbottens län och Örnsköldsvik hösten 1968* (Recruitment to secondary school in Västerbotten and Örnsköldsvik, autumn 1968) No. 1, 1969, Pedagogiska Rapporter, Umeå Universitet och Lärarhögskolan.

D. MAJOR RESEARCH PROJECTS IN PROGRESS

D.1 *Forskning och utvecklingsarbete på området producerad undervisning med speciellt betonande av kombinationer av radio, television och tryckt material*
(Research and development in the area of preproduced instruction, especially in combinations of radio, television and print)

Researchers: S. HENRYSSON, G. EDBOM, R. LIESIROVA and L. LINDBERG

Starting date: March 1969

Probable completion date: Autumn 1973

Purpose: To work out and evaluate different strategies of production of instructional systems. - To work out and evaluate different strategies for the pedagogical work of construction in instructional systems. - To work out and evaluate different strategies for evaluation of instructional systems.

D.2 *Samverkan i klassrummet* (Co-operation in the classroom)

Responsible researchers: S. HENRYSSON, T. EGERBLAD and W. RÖNMARK

Number of researchers engaged in the project: The three above and about 20 experts (teachers)

Starting date: July 1970

Probable completion date: June 1974

Purpose: To construct methods for teaching optimising co-operation in the classroom.

Procedure:

Pilot studies 1970-71:

Methods for teaching are to be constructed on basis of certain theories of the behavioural sciences, tested and revised by preliminary quasi-experiments of our own and by experts (teachers) and by discussions with lectures in methodologies.

Main research 1971-73:

The methods for teaching named above will be evaluated and further revised by field-research.

Reports:

The first reports will be published in spring 1971. In addition, the teaching methods are to be instrumentalised in the form of instructions to teachers, self-instructing study material and/or material for audio-visual media.

D.3 *Studieprognos och studiebortfall* (Prediction of academic performance and study of drop-out delay)

Researchers: S. HENRYSSON, I. ELGQVIST-SALTZMAN and C. STAGE

Starting date: September 1970

Probable completion date: 1972

Purpose: Analysis of study delay and drop-out in the study groups in Umeå which were investigated in project C.1, Prediction of academic performance at Umeå University.

Procedure: About 1,000 students, who entered the University of Umeå in autumn 1968, are followed during three years.

D.4 *Utvärdering av decentraliserad universitetsutbildning och kombinationsutbildning* (Evaluation of Swedish programmes in university extension)

Researchers: S. HENRYSSON, S. FRANKE-WIKBERG, M. JOHANSSON and A. RÅBERG

Starting date: February 1970

Probable completion date: Uncertain

Purpose: To build up a description of undergraduates in university extension in Sweden. Further research in this area will concentrate upon refining and developing new methods for evaluation of higher education.

Procedure/methods: Questionnaires, ability tests and attitude scales are distributed to all students. Questionnaires are also given to teachers engaged in the programmes and to some administration staff. The student's performance in examinations on parts of the programmes while term is on are recorded as well as results in finishing examinations.

D.5 *Konstruktion av studielämplighetsprov* (Construction of a test battery for an evaluation of the general ability to acquire higher education)

Researchers: S. HENRYSSON, B. GRENSJÖ and N-E. WEDMAN

Starting date: January 1968

Probable completion date: June 1971

Purpose: To construct a test battery intended to be used as a basis for an evaluation of the general ability to acquire higher education. The test is not to be constructed for the assessment of specific knowledge in different subjects, but to get a comprehensive measure of the intelligence, study ability and general knowledge needed to study at the higher level. The special competence which is needed in order to be admitted to different kinds of education will be decided in another way.

Procedure/methods: Conventional methods.

D.6 *Gymnastikundervisningen på gymnasiet* (Physical education in the secondary school)

Researchers: S. HENRYSSON and G. HEDBERG

Starting date: October 1968

Probable completion date: July 1971

Purpose: To throw light on three spheres of essential importance to the presentation of the subject of gymnastics: The organisation of gymnastics instruction in the second year of the secondary school as well as the attitude of the teachers to various problems concerning the content of the subject, its objectives and marking. - The attitude of the pupils to gymnastics instruction. - The pupils' interest and participation in spare-time athletic activities.

The underlying purpose of the investigation is thus to obtain more information on the situation of gymnastics teaching today, as well as on the attitude of pupils to this instruction and spare-time physical training, and thereby to extend the basis for reviewing the objectives and organisation of the subject of gymnastics.

Procedure/methods: A questionnaire addressed to a sample of 74 teachers and 920 pupils.

D.7 *Samernas behov av skolundervisning. En intervjuundersökning* (The educational needs of the Lapps. A survey research)

Researchers: S. HENRYSSON and H. JOHANSSON

Starting date: July 1970

Probable completion date: August 1972

Purpose: Lapp children have a modern school course in their own nomad schools. Pupils in nomad schools are mainly children of reindeer breeding Lapps. However, only one third of the Lapps in Sweden breed reindeer. This fact is important as many Lapp children have to accept work other than reindeer breeding. Very little is known about their educational needs. The purpose of this project is to discover the educational needs of reindeer breeding and non reindeer breeding Lapps.

Procedure/methods: Interviews with a sample of reindeer breeding and non reindeer breeding Lapps.

Name of institute: LÄRARHÖGSKOLAN I UPPSALA, PEDAGOGISKA INSTITUTIONEN
(Department of Educational Research, School of Education, Uppsala University)

Address: Pedagogiska institutionen, LHU, Ö. Ågatan 9
S-753 22 Uppsala

Director: Professor Karl-Georg Ahlström

A. HISTORICAL

1. Year of foundation: 1965. In operation: 1969.

2. The Teacher Training College in Uppsala was founded in 1965. Its Department of Educational Research began to function in 1969.

B. STATUS AND PROGRAMME

1. The Department is part of the teacher training college and connected with the Faculty of Social Sciences, Uppsala University. The Director holds a professorship at the Faculty. The students at the teacher training college are taught education and educational psychology by the teachers at the Department but are allowed to get further training in education at the University during and after the teacher training period. Advanced studies - at the doctoral level - are given at the Department.

2. An advisory board consisting of students and teachers exists. The curriculum is controlled by the National Board of Education.

3. There is a teaching and a research division. The latter consists of research units, organised in projects, and of service units: laboratory, electronic workshop, programming and data analysis, clerical office.

4. Staff in 1970

	Full-time	Part-time
Researchers	8	8
Teachers	9	
Service staff: engineers, technicians, data operators, clerks	9	1
Total	26	9

5. Budget 1970

Teaching: Impossible to specify, since it is part of the total budget for the teacher training college.

Research: 800,000 Sw.Cr.

Predominant sources of finance: The National Board of Education and the Tercentenary Fund of the Bank of Sweden.

6. The teaching staff is entirely engaged in the training of teachers. There are 23 persons studying for the PhD degree. Only one of them belongs to the teaching staff.

7. The research work is organised in a few large projects and a 'free' section. These are concerned with the following areas.

- Language development in and training of severely hard-of-hearing children.
- Training methods among visually handicapped children and adults.
- Methods of instruction in reading among mentally retarded children.
- Foreign language instruction
  - at the junior stage
  - methods of individualisation in ages 14-16 years.
- Computer managed instruction (until 1971 only at the theoretical level).
- A 'free section' containing specific doctoral studies concerning *inter alia* behaviour modification (desensitisation), prediction of success in workshop training among mentally retarded adults, discipline problems in the compulsory school, the effects of lesson assignments or no assignments in the secondary school.

C. MAJOR RESEARCH PROJECTS REPORTED IN THE ACADEMIC YEARS 1968-69 AND 1969-70

D. MAJOR RESEARCH PROJECTS IN PROGRESS

D.1 *English at the junior stage*

Project leader: L. LINELL

Number of research workers engaged in project: 5 teachers of English, German and French and 2 pedagogical research workers.

Starting date: Spring 1969

Probable completion date: The project is planned in two phases: the first will be completed in 1976; the second, a follow-up phase, will not be completed until 1979.

Purpose: To study: the optimum division of available teaching time in English throughout the nine years of the comprehensive school; - the effect of a large increase in the total number of hours allocated to English teaching in the comprehensive school. It is suggested that the extra hours should be concentrated on grades 2 and 3. A general study will try to check changes in the pupils' school situation with regard to their cognitive, affective and psycho-motory development.

Methods: There are 4 experiment groups in the project, each made up of 20-30 classes. Group *a* will start English in grade 4, group *b* in grade 3, and groups *c* and *d* will both start English in grade 1. The number of English lessons will be divided in different ways in the 4 groups. Groups *a* and *b* will use commercially available teaching materials, while the materials for groups *c* and *d* will be produced within the project.

D.2 *How conflicts arise in the classroom and the development of ways of resolving them*

Project leader: A. LINDH-MUNTHER, L-M. WIDMAN

Number of research workers engaged in project: 4

Starting date: July 1970

Probable completion date: June 1973

Purpose: The primary aim is to survey the problems which teachers in the middle and senior levels of the comprehensive school meet when they come into contact with pupils during lessons. The investigation is thus mainly concerned with 'disciplinary' problems and the methods commonly used by teachers to solve them. Therefore it is of special interest to find out how teachers differ from each other and whether there is a certain pattern in their behaviour. A second aim is to develop an observation schedule which will make it possible to set up hypotheses partly about reinforcement patterns and other factors which may contribute to disturbances in the classroom and partly as to how these disturbances can be counteracted or eliminated.

Procedure/methods: A survey of the problems teachers experience and their methods of dealing with them is to be made with the help of an exhaustive questionnaire. Correlation methods, including factor analysis, thus become the most important methods of analysis. For the observation study there are two observers in each classroom, who concentrate on observing and registering behaviour which can be disturbing for the teacher or for pupils and the reaction to such behaviour. In co-operation with the teacher and also with pupils who may want to sort out difficulties in the classroom, a change in the behaviour pattern of the teacher/pupils is discussed and tried out in accordance with the theory of social learning. The effect of these changes is discussed and evaluated.

D.3 *Problems connected with changes from one school level to another and between different schools*

Project leader: R. AXELSSON

Number of research workers engaged in project: 3

Starting date: July 1970

Probable completion date: June 1975

Purpose: When pupils move from the lower to the middle level of the comprehensive school (from grade 3 to grade 4) they get a new class teacher; when they move on to the senior level (from grade 6 to grade 7), their class teacher is replaced by subject teachers. All their subject teachers change when they leave the senior level of the comprehensive school and start in the secondary school. The project aims to: find ways for the teacher who receives a class to get the necessary information about the pupils to enable him to plan his teaching; not only information about their levels of knowledge and intelligence but also about their behaviour in group work, individual study and so on; - give pupils information about how their work at the new level will be organised. The aim is thus to give both teachers and pupils the information necessary for them to be able jointly to plan their work at the new level.

Procedure/methods: The first part of the project is to work out diagnostic tests and methods of observing the pupils' behaviour in certain typical classroom situations and to analyse different alternatives for the collection of data and to find out how this data may best be passed to teachers and pupils. It will be especially interesting to see whether measurements and observations during a special observation period at the start of each level can give information about the pupils that is as good as, or better than, the information the former teacher provides. During the experiment classroom observations will be made to find out whether the information that has been collected is used during lesson planning; questionnaires to teachers and pupils will ask about difficulties at the planning stage which hindered effective use of the data; tests given to the pupils will find out the effects as regards knowledge, achievement and the atmosphere in the school.

D.4 *Models for individualisation and differentiation in foreign language teaching*

Project leader: T. LARSSON

Number of research workers engaged in project: 2

Starting date: July 1970

Probable completion date: June 1975

Purpose: Foreign language teaching at the senior level of the comprehensive school (14-16 years of age) is at present given as a general course and an advanced course. The pupils can choose the course they want to follow. Investigations have shown that this division into two courses (English is a compulsory subject for all pupils) does not necessarily mean that classes are more homogeneous as regards the pupils' learning ability in English. There are also reasons to believe that the pupils' choice is guided by socio-economic factors in an undesirable way, and that for this reason these factors influence higher studies later on. By doing away with this division into two courses it should be possible to counteract social influences in the choice of higher studies and perhaps also to bridge some of the social gaps between pupils, at the same time differentiation within the class should ensure that equally good results are reached.

Procedure/methods: Work has begun with the construction of diagnostic tests of the different skills in English. These will show the pupils' starting point at the senior level. At the same time all material which permits differentiation at the senior level is being catalogued. If new material is found to be necessary it will be constructed. After the diagnostic tests have been tried out in prospective experimental and control classes a choice will be made between differentiation models which will be used in the experimental classes. An experimental study will be carried out from the autumn of 1971, but if it is found that a very large amount of material must be constructed, the experiment will be postponed. The dependent variables in the experiment consist of tests in the different skills in English, attitudes towards the teaching and towards other pupils in the class, sociometric investigations and questionnaires to the teachers about their work and the atmosphere in the classroom. The control variables include, among other things, tests of the pupils' starting level in the different skills in English, sociometric data and socio-economic data.

D.5 *Intensive student welfare*

Project leader: A. NOBEL, E. OLSSON

Number of research workers engaged in project: 3

Starting date: July 1970

Probable completion date: June 1975

Purpose: To find ways of improving student welfare by means of additional extra-curricular activities for pupils during breaks and at the end of the school day. There is also a plan to change the functions and organisation of

conferences on student welfare. The voluntary extra-curricular activities are primarily aimed at those pupils who, on account of their home surroundings, normally find it difficult to join in such activities. It is planned to use parents in these activities as much as possible.

At present student welfare conferences deal with acute problems such as truancy and other behavioural divergencies. It would be desirable if these conferences could also take preventive measures, but to be able to do so, a change in functions and organisation is necessary.

Procedure/methods: Different extra-curricular activities are planned and carried out progressively in the experimental district. The pupils' presence is continually checked to make it possible to find out what is typical of those who take part and those who do not take part in the extra-curricular activities. The conclusions are to be based on the information available about the pupils and on questionnaires dealing with the pupils' attitudes to the activities and to their reasons for taking part or not taking part.

To form a basis around which student welfare conferences can be changed, an investigation will be made in a number of conferences. Literature about preventive student welfare will also be studied to find out what has been tried out in other connections. It is planned that these two investigations will result in suggested models for student welfare work, which will be evaluated later on.

D.6 *Reading instruction in schools for mentally retarded children*

Project leader: M. WITTING

Number of research workers engaged in project: 1 full-time, 1-5 part-time

Starting date: July 1966

Probable completion date: June 1972

Purpose: To evaluate quantitatively and qualitatively two methods of reading practice and a method of individualised instruction co-ordinated with the two methods.

Methods: One of the two methods is the traditional method of teaching reading in Sweden (the phonic method) and the other is a new method, called the psycho-linguistic method. The individualised technique is of a simple, self-instructional type, utilising tape-recorders and printed materials. The methods have been defined in formalised reading practice programmes. The teachers have been instructed in these programmes and teach according to them. The experiment has been carried out with mentally retarded children (IQ 50-70) in grades 1-3. Four experimental groups have been formed: (A) phonic method, (B) phonic + self-instruction, (C) psycho-linguistic method, (D) psycho-linguistic + self-instruction. These groups have been studied over a period of 3 years. Observations have been made every second week and the pupil's progress has been recorded. The effects of the methods have been measured at the end of each school year. The results are now being assessed.

D.7 *An investigation of the problems which face the visually handicapped when studying*

Project leader: B. LINDQVIST, N. TROWALD

Number of research workers engaged in project: 8

Starting date: July 1969

Probable completion date: June 1973

Purpose: To investigate the difficulties which the visually handicapped meet when studying, and to try to improve their methods of learning.

Methods: Exhaustive questionnaires and interviews will be used to investigate the different kinds of difficulties which the visually handicapped meet in their studies. Experiments will be made to try to find the most efficient means of teaching, using talking books, braille, and tactile illustrative material. The project will also analyse the mental adjustment of the visually handicapped, using tests and interviews. The results will be used to try to help the pupils in their adjustment and in this way help them indirectly, in their studies.

D.8 *An organisational experiment in the* gymnasium *(high school) and* fackskola *(vocational school). PEDO*

Project leader: B. EKMAN

Number of research workers engaged in project: Varying

Starting date: July 1969

Probable completion date: June 1974

Purpose: To find ways of teaching which create favourable opportunities for: co-operation among teachers, among students, and between teachers and students, - co-operation between different subjects, - individualisation, - a more meaningful use of the teacher, - increased student influence during the planning of teaching, - an adjustment of the students' work load to 40 hours of actual work per week.

Methods: The organisation is based upon teaching units instead of upon the traditional class of no more than 30 students. With regard to student welfare the class is still the basic unit. The students work in periods of different lengths, the length of each period being expressed in modules of 20 minutes. A work period can consist of up to six 20-minute modules. Fields of work and teacher team teaching are frequent features. There are plans for co-operation between the different teaching units, which are a basis for planning at staff meetings and in teacher teams. Systematic training is given in methods of study. Two modules are allowed every week for class councils. Evaluation has been carried out so far by means of questionnaires, which have been distributed to students, teachers and parents.

D.9 *Självinstruerande metoder i dövundervisningen (SMID)* (Self-instructional methods for the deaf)

Project leader: S. AMCOFF

Number of research workers engaged in project: 7

Starting date: July 1965

Probable completion date: June 1973

Purpose: The main object of the SMID project is to develop a material-method system for teaching Swedish to hard of hearing or deaf pupils at the junior stage of the special school for hearing-handicapped children. The system is primarily intended for pupils in the first and second years, but should also be applicable in certain parts to the nursery school. The sytem is intended to cover about 70% of the time devoted to teaching in the first and second years and should constitute the framework of the teaching. As a by-product of this, a teaching machine with general spheres of application is being developed. A subordinate aim of the project is the study of the placing of hearing-handicapped children in various types of schools as well as the adjustment to the community of deaf adults.

Procedure: The project started with a series of sub-investigations concerned with the following: Determination of the degree and type of speech retardation. - Questionnaires answered by teachers concerning methods of teaching and use of different means of communication. - The construction and technical development of a completely automatic teaching machine. The machine is used for learning concepts, training in reading and hearing. - The development of principles for the construction of material for the teaching machine. - Experiments on coded speech for hearing training. A series of experiments has been carried out in order to determine the effects of frequency transposition on the comprehension of speech. - Composition of a sign system to increase the transmission of information by means of speech reading. - Multi-channel learning. - The adjustment of pupils with defective hearing to different types of school.

Name of institute: INSTITUTIONEN FOR PEDAGOGIK, UPPSALA UNIVERSITY
(Institute of Education, Uppsala University)

Address: S:t Olofsgatan 12, 752 21 Uppsala

Director: Acting Professor Lars-Gunnar Holmström

A. HISTORICAL

Year of foundation: 1909.

The Institute was founded on the initiative of the Swedish Government and National Parliament, to promote the study of education for prospective teachers in secondary schools.

B. ORGANISATION AND PROGRAMME

1. The Institute is connected with Uppsala University; professor, assistant professors and lecturers are members of the Faculty of Social Sciences.

2. No directing board.

3. Formally no subdivision; in fact there are sections for

- comparative and historical education
- didactics
- empirical research in educational psychology.

4. From the beginning of this academic year the course for prospective teachers in secondary schools has been moved to the 'Teacher Colleges', but nevertheless a lot of prospective teachers study education at the university in order to get a better competence for their job.

5. Staff in 1970

		Full-time	Part-time
Total	37	24	13
Professor		1	
Assistant professors		2	
Docent		1	
Lecturers		11	
Research assistants		2	
Assistants		7	13

190 researchers (for PhD degree or licentiate exam)

6. Total budget

1969 about 2.5 million Sw.Cr.

Predominant source of finance: National government and foundations.

7. Main fields of research activity: Historical education, comparative education, didactics, various fields in educational psychology, adult education for the deaf and for slow learners, the genesis of delinquency, educational (instructional) technology.

C. MAJOR RESEARCH PROJECTS REPORTED IN THE ACADEMIC YEARS 1968-69 AND 1969-70

D. MAJOR RESEARCH PROJECTS IN PROGRESS

.1 *Factors determining spelling ability*

Responsible researcher: T. DAHLBOM

Starting date: 1964

Probable completion date: Not yet determined

Purpose: To develop improved teaching methods by establishment of the factors underlying spelling ability.

Procedure/methods: Factor analysis. As criterion variable, spelling ability is made up of three sub-abilities. Two of these represent transfer of knowledge, the third word-specific memorised knowledge. The three sub-abilities have a varying factor structure according to a reference system of 8 factors. The reference system was obtained by factor analysis of different criterion variables and 32 predictor variables which, according to earlier spelling research and the author's hypotheses, are related to spelling ability.

.2 *Teaching rational conflict resolution*

Responsible researcher: A. PIKAS

Number of research workers (students): 20

Starting date: Autumn 1968

Probable completion date: By the end of the 1970s

Purpose: The programme aims to provide: knowledge of relevant interpersonal reactions in conflicts; - ability to analyse these reactions and possible fallacies of good intentions with individual applications; - suggestions for creating an interpersonal atmosphere in which discussion aimed to discover common goals with the antagonist would be possible; - a postulated universal value system consisting of three values which may reciprocally be demanded by the antagonists but balanced by each other (ie each of the three values survival, justice based on equality, and freedom - can be demanded by the antagonist and the antagonist is allowed to demand each of these, and in this mutual condition no value is exaggerated and violation of the remaining ones in the system is avoided).

Procedure/methods: The teaching instruments and also partly the aims of the project are developed by a continuous mutual interaction with the experimental subjects, the readers of a self-instructional booklet entitled *Rational Conflict Resolution*. The term 'rational' refers to the balancing and reflecting relation between values, which implies an inhibition of immediate impulses in a conflict situation (but does rather encourage irrational impulses in other situations of life).

Three successively improved versions of the booklet have appeared since the beginning of the project. Total number of experimental subjects during the autumn term 1970: about 700, mainly 17-year-old secondary school pupils + control groups. Predicted changes are studied by attitude instrument and projective test results in investigations with earlier versions of the book and suggestions, attitudes and criticisms are synthesised in the next version. Prior to the main investigation, a study was conducted on the youngsters' spontaneous constructivity in conflict resolution; at present, content analysing of about 500 essays, *How enemies become friends*, written by pupils at age levels 12, 14, 16, 18.

If the continuously improved ideas mediated by the self-instructional material are sufficiently accepted and their utility is corroborated by its readers, experiments with transference of its contents to series of TV programmes will take place.

Reference:

Pikas, A. *Indoctrination of basic ideas of rational conflict resolution.* Rep. Inst. of Educ., Uppsala University, 41, 1969.

D.3 *Freedom and equality as basic educational concepts within western democracy from the end of the eighteenth century*

Responsible researchers: W. SJÖSTRAND and S.G. NORDSTRÖM

Number of research workers: Varies but at present about 10

Starting date: Summer 1969

Probable completion date: Continuing for an indefinite period

Purpose: By means of historical studies to provide a thorough grounding in how the two concepts have changed in content and been differently evaluated in relation to one another. In the public debate on this question it would then be possible to define different points of view in a more illuminating manner.

Procedure/methods: Historical research and analysis of content.

Reference:

Sjöstrand, W. *Frihet och jämlikhet: Två grundbegrepp inom 60-talets svenska pedagogik* (Freedom and equality: Two fundamental concepts within Swedish educational research during the Sixties) Gebers förlag, 1970.

D.4 *Adult students; charting their prospects as background to investigation of suitable methods of study*

Responsible researcher: W. SJÖSTRAND

Number of research workers: 3

Starting date: Autumn 1967

Probable completion date: Continuing for an indefinite period

Purpose: Through a thorough knowledge of the nature of adult students in various respects, their background etc, to obtain a reliable basis for didactic experiments, which should reveal what teaching methods should be used.

Procedure/methods: Empirical investigations by questionnaires and tests, didactic experiments.

D.5 *Aetiology and treatment within youth care*

Responsible researcher: W. SJÖSTRAND

Number of research workers: 3

Starting date: 1964

Probable completion date: 1971

Purpose: To analyse the personality of the pupils and the school environment in the light of how the socialisation process takes place in order to be able to bring about more individualised and effective treatment.

Procedure/methods: Interviews, tests, analysis of pupils' files.

D.6 *Four yearly intakes at Swedish juvenile detention centres*

Responsible researcher: W. SJÖSTRAND

Number of research workers: 2

Starting date: 1961

Probable completion date: 1970

Purpose: An application of our knowledge concerning the socialisation process in order to examine whether it can be verified in these asocial subjects, chiefly in order to create individually adjusted intensive care during the detention period, also of a purely psychotherapeutic nature.

Procedure/methods: Interviews, tests, analysis of files.

D.7 *Systems analysis of courses at the Juridical Department of Uppsala University*

Responsible researcher: L-G. HOLMSTRÖM

Number of research workers: 2

Starting date: 1970-

Purpose: To develop and try out models for systems analysis of a vocational course at post-secondary level. The Juridical Department at Uppsala University was chosen as subject for the study.

Procedure/methods: The project, which in its entirety is an analysis at macro-level, comprises in its first phase surveys and analyses of the students admitted in autumn 1965, students who in autumn 1970 are studying Civil Law I and those studying Law of Procedure. Background variables for those admitted in 1965 were collected in conjunction with admission. Other data concerning their study conditions during the Autumn Term 1965 and Spring Term 1966 were collected by means of a questionnaire. An examination of the results of their studies during the period 1965-70, has been made on the basis of records on their study cards. The survey of the study conditions of Civil Law and Law of Procedure students is being made by means of a questionnaire in the autumn of 1970. The results of these analyses will be used for planning the next phase of the project.

D.8 *Study situation and study habits in class 1 of the 'gymnasial school'*

Responsible researcher: L-G. HOLMSTRÖM

Starting date: 1970

Probable completion date: 1972

Purpose: To survey the pupils' study situation and prospects for the educational methodology in the new *gymnasium*.

On the basis of the results of this survey to design and try out a teaching aids package for the training of study proficiency for *gymnasium* pupils, including diagnostic instruments, study proficiency programmes, with appurtenant materials and instructions for teachers.

The project is restricted to the subject of Swedish, but the intention is that the principles and the model for the design and testing of this teaching aids package will be usable for other subjects.

Procedure/methods: Collection of background data from pupils' existing records, supplemented by data from questionnaires and interviews. Earlier study habits to be established by means of a questionnaire. Ability data to be collected through tests and earlier grades. Background variables of type family data, earlier study habits, interest in and attitudes to school, to be collected through questionnaires and interviews. Ability and personality data through tests. Data of the work situation to be collected continuously during the term by means of questionnaires, observations and time studies.

III. EDUCATIONAL RESEARCH PROJECTS CARRIED OUT BY ORGANISATIONS NOT PRIMARILY CONCERNED WITH EDUCATIONAL RESEARCH

Replies were received from the following organisations:

1. Psychological Laboratory, Stockholm University
2. Department of Sociology, Umeå University
3. Commission of Enquiry into Low Incomes, Uppsala

Name of organisation: PSYKOLOGISKA INSTITUTIONEN VID STOCKHOLMS UNIVERSITET (Psychological Laboratory, Stockholm University)

Address: Box 6801, S-113 86 Stockholm

Director: Professor David Magnusson

Research project in progress

Studier i anpassning, beteende och prestation - Örebroprojektet (Studies in adjustment, behaviour and achievement - The Örebro project)

Responsible researchers: D. MAGNUSSON and A. DUNÉR

Number of research workers engaged in project: 12

Starting date: 1964

Probable completion date: 1975-78

Purpose: Analysis of the factors that determine adjustment in the school situation in a broad sense (satisfaction, social relations, achievement). - Analysis of the relationships between adjustment in the school situation and adjustment later on in occupational training, work etc. - Working out of models for early prediction of maladjustment and testing of programmes for prevention of the predicted development.

Procedure/methods: Follow up of the pupils in three grades of the comprehensive school in Örebro. The youngest children (the main group) have been studied from grade 3, age 10 (1965) and will be studied for about five more years. There are about 1,000 pupils in each grade.

The groups are studied extensively every two or three years, with a battery of methods: tests, questionnaires to pupils and parents. Questionnaires of semantic differential type, ratings by teachers and classmates. Models are used for causal analysis, change, classification in homogeneous groups, decision making etc.

For special problems intensive studies supported by individual methods are made on samples of children chosen a) on the basis of results from the questionnaire studies so that they represent a special degree or type of adjustment or b) to fit the framework of a model for the study of a special problem.

Physiological measures of brain activity, endocrinological activity, general physical ability and skeletal maturity are collected for a sample and related to data from the psychological studies.

Name of organisation: AVDELNINGEN FÖR SOCIOLOGI, UMEÅ UNIVERSITET
(Department of Sociology, University of Umeå)

Address: 901 87 Umeå

Director: Professor Georg Karlsson

Research project in progress

Universitetsmiljö, studieeffektivitet och politisk aktivitet (University milieu, effectiveness in studies and political activity)

Responsible researchers: G. KARLSSON, W. KORPI

Number of research workers engaged in project: 2

Starting date: July 1970

Probable completion date: 1973

Purpose: To investigate what happens to the student during his time at the university in terms of social relationships, finance, political activity, progress in studies, etc. To study how these and other factors affect his decisions on how to act in order to solve problems that he meets during his time at the university and that he will meet after finishing his studies.

Procedure/method: Panel study of all new students that were registered at the University of Umeå at the beginning of the autumn semester 1970. The first returns were obtained during the registration of the students.

Name of organisation: LÅGINKOMSTUTREDNINGEN (Commission of Enquiry into Low Incomes)

Address: Sturegatan 24 A Uppsala

Director: Sten Johansson, fil.lic.

This Commission is carrying out sundry research with various methods in order to assess both economic standards in monetary terms and standards of living in non-monetary terms of the whole Swedish population. The educational standards of the population enter only as a part of the project.

Research project in progress

Den vuxna befolkningens utbildning (The educational standards of the adult population)

Responsible researcher: L. JOHANSSON

Number of research workers: 1 (on education)

Starting date: January 1968

Completion date: In printing December 1970

Purpose: To assess the educational standards of the whole adult (15-75 years of age) population, broken down by age-groups, occupational groups, regional differences etc. To assess differences in educational standards stemming from differences in social background.

Procedure/method: Interviews with a nationally representative 0.1% sample (*ca* 6,000 respondents).